



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED200DHV50.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST]  
 [TESTLAB] Dongguan New Testing Centre Co., Ltd  
 [TESTDATE] 21 May 2019  
 [ISSUEDATE] 2019-05-21 09:54:21  
 [NEARFIELD]  
 [LAMPPOSITION] 0,0  
 [OTHER] EVERFINE GO-R5000\_V2 SYSTEM  
 [MANUFAC] Mobern Lighting Co.  
 [LUMCAT] HBRMSR-LED200DHV50  
 [MORE] MHB04  
 [LUMINAIRE] LED  
 [BALLAST] 347-480Vac,50/60Hz  
 [OTHER]  

[OTHER]	Gamma(deg)	Fz(lm)	Ft(lm)	%Lum	%Lamp
[OTHER]	0- 10	1196.29	1196.29	3.97	3.97
[OTHER]	10- 20	3618.23	4814.52	16.00	16.00
[OTHER]	20- 30	6042.83	10857.35	36.07	36.07
[OTHER]	30- 40	7974.78	18832.13	62.57	62.57
[OTHER]	40- 50	7395.24	26227.37	87.14	87.14
[OTHER]	50- 60	3047.22	29274.59	97.26	97.26
[OTHER]	60- 70	491.10	29765.69	98.90	98.90
[OTHER]	70- 80	239.39	30005.08	99.69	99.69
[OTHER]	80- 90	70.14	30075.21	99.92	99.92
[OTHER]	90-100	0.36	30075.57	99.92	99.92
[OTHER]	100-110	0.89	30076.46	99.93	99.93
[OTHER]	110-120	1.80	30078.26	99.93	99.93
[OTHER]	120-130	3.04	30081.30	99.94	99.94
[OTHER]	130-140	4.16	30085.46	99.96	99.96
[OTHER]	140-150	4.62	30090.08	99.97	99.97
[OTHER]	150-160	4.24	30094.32	99.99	99.99
[OTHER]	160-170	2.89	30097.21	100.00	100.00
[OTHER]	170-180	1.01	30098.22	100.00	100.00
[OTHER]					

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**CHARACTERISTICS**

Lumens Per Lamp	30098 (1 lamp)
Total Lamp Lumens	30098
Luminaire Lumens	30098
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	151
Total Luminaire Watts	199.855
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.54
Spacing Criterion (90-270)	1.52
Spacing Criterion (Diagonal)	1.48
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 m (Diameter)
Luminous Width (90-270)	0.35 m (Diameter)
Luminous Height	0.00 m

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	143792	144716	147650
55	56703	55400	59474
65	9917	9562	10106
75	8857	8445	8762
85	7714	6721	5830

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**CANDELA TABULATION**

	<b>0</b>	<b>15</b>	<b>30</b>	<b>45</b>	<b>60</b>	<b>75</b>	<b>90</b>	<b>105</b>	<b>120</b>	<b>135</b>
<b>0</b>	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17
<b>1</b>	12452.54	12447.30	12440.40	12431.19	12425.44	12424.76	12419.70	12422.14	12429.54	12429.14
<b>2</b>	12457.14	12445.53	12431.14	12419.18	12405.26	12397.73	12393.28	12394.40	12404.25	12413.40
<b>3</b>	12466.64	12445.62	12421.89	12401.88	12386.47	12372.44	12366.02	12372.34	12390.88	12402.45
<b>4</b>	12478.67	12450.08	12419.04	12391.17	12368.77	12351.44	12353.36	12354.78	12370.50	12389.35
<b>5</b>	12492.90	12457.69	12417.54	12383.16	12355.87	12332.63	12336.73	12339.56	12358.17	12382.44
<b>6</b>	12508.45	12462.97	12418.60	12375.89	12344.46	12315.96	12316.64	12320.61	12348.64	12379.10
<b>7</b>	12529.21	12472.10	12419.30	12369.22	12338.06	12305.09	12297.32	12306.55	12338.10	12375.53
<b>8</b>	12550.64	12487.81	12422.46	12363.23	12325.50	12293.82	12282.78	12294.46	12330.95	12367.98
<b>9</b>	12568.17	12499.60	12428.41	12363.24	12315.92	12275.03	12273.59	12285.83	12321.22	12366.71
<b>10</b>	12593.31	12517.66	12440.58	12363.97	12307.46	12266.63	12265.12	12276.24	12316.35	12371.53
<b>11</b>	12622.43	12536.82	12450.77	12367.20	12306.96	12263.75	12257.99	12274.83	12313.24	12371.64
<b>12</b>	12649.33	12557.03	12461.65	12370.61	12308.69	12258.76	12256.87	12264.01	12313.96	12377.11
<b>13</b>	12679.88	12579.35	12478.55	12382.53	12307.70	12252.83	12248.79	12265.29	12317.96	12382.83
<b>14</b>	12715.50	12605.72	12492.84	12395.99	12319.08	12255.90	12244.75	12269.51	12329.82	12392.72
<b>15</b>	12746.07	12633.38	12513.86	12408.14	12325.81	12266.34	12249.25	12279.00	12334.88	12409.24
<b>16</b>	12778.61	12661.66	12537.44	12426.35	12340.00	12271.28	12254.64	12288.67	12346.91	12421.85
<b>17</b>	12818.23	12698.04	12561.68	12444.21	12353.76	12284.42	12270.18	12301.77	12357.28	12440.60
<b>18</b>	12855.27	12726.81	12589.85	12469.24	12374.01	12303.83	12287.05	12317.26	12379.38	12462.08
<b>19</b>	12891.37	12759.16	12617.19	12492.02	12392.73	12317.76	12303.19	12334.95	12398.35	12481.87
<b>20</b>	12928.55	12793.86	12649.02	12520.22	12411.17	12339.67	12321.03	12352.77	12418.91	12508.07
<b>21</b>	12969.33	12827.88	12675.21	12544.85	12439.22	12364.32	12341.29	12379.70	12444.21	12533.94
<b>22</b>	13003.21	12863.00	12709.06	12574.05	12466.60	12390.69	12366.01	12404.92	12468.29	12559.87
<b>23</b>	13033.34	12894.45	12740.38	12606.44	12494.55	12420.10	12392.43	12427.03	12491.17	12591.27
<b>24</b>	13067.86	12926.89	12775.47	12638.14	12528.44	12447.60	12417.16	12458.18	12522.48	12631.11
<b>25</b>	13094.88	12963.70	12801.66	12671.76	12553.26	12477.83	12450.13	12487.19	12556.99	12656.28
<b>26</b>	13117.36	12990.07	12833.05	12701.72	12586.48	12504.51	12479.49	12519.34	12581.99	12687.48
<b>27</b>	13135.50	13011.55	12854.05	12728.89	12613.47	12532.65	12509.51	12541.74	12610.13	12715.21
<b>28</b>	13150.12	13025.39	12873.14	12754.07	12641.85	12561.09	12536.41	12571.91	12635.43	12736.54
<b>29</b>	13147.14	13034.18	12885.89	12768.81	12655.97	12584.71	12561.00	12588.88	12653.33	12751.10
<b>30</b>	13138.04	13030.34	12890.79	12779.39	12667.11	12599.47	12577.49	12603.98	12663.51	12761.54
<b>31</b>	13108.66	13016.29	12884.94	12780.37	12672.15	12609.26	12587.15	12610.18	12669.46	12761.23
<b>32</b>	13071.89	12989.34	12864.76	12766.83	12662.83	12609.03	12590.59	12608.83	12665.28	12746.83
<b>33</b>	13012.29	12948.34	12833.10	12741.76	12645.89	12592.00	12579.14	12587.94	12651.66	12724.20
<b>34</b>	12937.40	12883.45	12784.60	12699.78	12608.92	12561.08	12558.39	12554.26	12609.22	12681.96
<b>35</b>	12836.98	12796.16	12705.10	12632.31	12552.09	12515.12	12514.33	12504.26	12554.09	12618.89
<b>36</b>	12711.31	12686.79	12607.19	12541.54	12469.30	12439.60	12454.18	12433.92	12480.52	12525.30
<b>37</b>	12552.87	12543.00	12473.04	12425.57	12354.79	12337.21	12360.09	12331.00	12375.01	12414.84
<b>38</b>	12363.37	12367.45	12311.24	12277.48	12213.14	12202.31	12239.97	12200.28	12246.47	12276.65
<b>39</b>	12138.80	12152.81	12110.68	12085.54	12024.89	12029.57	12079.86	12024.19	12071.44	12089.14
<b>40</b>	11871.35	11902.19	11864.58	11848.17	11801.44	11810.24	11879.93	11804.77	11851.71	11863.67
<b>41</b>	11552.66	11603.37	11578.31	11575.30	11516.21	11548.26	11628.14	11543.40	11591.88	11594.21
<b>42</b>	11198.36	11246.97	11234.62	11235.27	11184.70	11219.66	11329.60	11215.63	11267.78	11260.63
<b>43</b>	10784.68	10843.42	10833.22	10835.06	10789.08	10833.48	10965.42	10828.26	10890.38	10875.13
<b>44</b>	10313.60	10374.07	10373.34	10371.74	10317.19	10377.73	10540.71	10378.12	10441.72	10425.09
<b>45</b>	9786.53	9850.04	9852.42	9849.45	9791.06	9859.81	10049.13	9854.49	9927.70	9906.47
<b>46</b>	9208.20	9261.61	9265.12	9256.56	9192.97	9270.83	9474.92	9268.42	9344.97	9332.26
<b>47</b>	8589.97	8622.31	8615.53	8605.41	8540.12	8616.46	8842.76	8610.34	8705.89	8698.32
<b>48</b>	7926.17	7945.66	7936.09	7918.39	7832.50	7921.89	8154.27	7923.50	8023.86	8026.87
<b>49</b>	7229.86	7236.89	7207.35	7181.79	7106.90	7200.14	7438.87	7198.10	7320.30	7331.44
<b>50</b>	6505.41	6517.09	6474.26	6454.81	6374.24	6479.87	6710.18	6481.11	6585.98	6613.21
<b>51</b>	5800.14	5786.50	5743.22	5728.77	5662.35	5766.23	5985.95	5758.59	5873.10	5888.83
<b>52</b>	5093.19	5086.26	5023.96	5025.75	4974.17	5074.16	5273.33	5056.67	5150.05	5174.35
<b>53</b>	4413.50	4393.41	4328.31	4343.30	4287.46	4397.48	4579.11	4369.24	4471.68	4487.25

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**CANDELA TABULATION - (Cont.)**

54	3755.04	3743.24	3666.25	3679.62	3639.11	3744.00	3915.48	3715.47	3815.59	3822.01
55	3130.46	3124.64	3052.64	3058.52	3013.34	3118.58	3283.41	3101.01	3189.07	3194.22
56	2553.61	2551.90	2484.82	2551.29	2435.66	2599.60	2701.65	2526.26	2616.36	2624.69
57	2038.88	2083.62	1982.40	2044.07	1921.88	2080.63	2237.29	2019.27	2173.77	2107.08
58	1609.90	1616.93	1546.64	1539.89	1480.83	1563.70	1772.93	1570.13	1731.17	1651.69
59	1247.91	1244.10	1185.95	1170.84	1129.25	1192.40	1311.71	1203.62	1289.96	1285.10
60	956.30	946.33	894.91	886.78	937.06	911.61	988.75	933.31	1004.16	1006.16
61	799.13	725.97	723.94	687.29	747.42	714.57	762.15	791.58	798.14	848.09
62	644.42	574.42	553.18	559.68	557.78	582.86	616.74	651.13	648.45	694.31
63	489.72	482.67	471.54	478.62	485.48	498.25	521.46	510.67	545.66	540.54
64	437.33	429.42	420.63	426.36	434.57	444.32	458.51	446.80	473.42	466.27
65	403.42	395.12	385.64	388.97	395.95	401.51	411.08	402.11	422.72	413.54
66	377.56	368.74	358.05	360.92	366.14	370.24	375.38	369.53	386.33	377.68
67	355.82	347.40	335.97	338.67	343.15	346.14	348.41	344.49	357.38	352.18
68	336.42	328.63	317.93	320.13	323.41	324.83	326.72	324.46	334.01	331.36
69	319.56	312.03	301.51	303.74	305.76	306.77	309.26	307.02	313.29	313.92
70	303.42	296.11	285.98	287.52	289.69	290.81	293.81	291.50	295.58	298.45
71	287.83	280.57	271.14	272.46	274.43	275.84	278.60	276.34	279.73	283.41
72	271.69	264.81	256.38	256.99	258.92	260.91	263.98	260.19	264.15	268.95
73	255.15	248.92	241.28	241.81	243.34	246.34	250.51	245.14	250.12	254.26
74	238.36	232.53	224.78	226.10	226.97	230.27	235.08	228.92	233.61	238.19
75	220.65	216.14	208.63	210.39	210.36	214.20	218.29	212.82	217.10	221.27
76	203.68	199.79	193.03	194.68	193.78	198.13	201.49	196.95	200.59	204.36
77	187.21	184.78	177.47	179.65	177.17	181.88	184.31	180.72	184.02	187.14
78	171.11	169.43	162.10	164.32	161.49	165.34	166.70	163.81	167.28	170.31
79	155.45	154.40	147.00	149.45	146.00	149.28	149.80	148.15	151.27	155.37
80	139.98	139.33	132.45	134.12	130.58	132.98	134.47	132.27	136.44	140.50
81	125.29	124.66	118.08	119.71	115.95	117.21	119.18	116.77	121.13	126.00
82	111.02	109.97	103.93	104.71	100.69	101.45	104.44	100.09	104.91	110.07
83	95.82	95.87	88.83	89.90	82.74	85.18	86.71	81.79	88.09	94.92
84	80.27	80.59	73.73	73.59	64.78	66.18	67.03	63.49	70.58	76.86
85	64.71	65.53	58.62	56.38	46.81	47.05	48.91	45.18	51.17	58.78
86	49.15	50.27	42.00	39.19	28.49	31.67	33.31	26.48	35.01	40.69
87	34.34	33.57	25.51	22.00	11.58	16.29	17.71	8.29	18.86	19.80
88	14.44	16.87	6.32	4.88	7.77	1.36	2.40	4.10	2.85	13.15
89	9.60	0.35	3.14	0.15	3.96	0.15	0.36	0.36	0.35	6.75
90	4.86	0.09	0.11	0.09	0.16	0.09	0.25	0.26	0.25	0.35
91	0.11	0.08	0.09	0.09	0.09	0.09	0.27	0.27	0.27	0.26
92	0.10	0.10	0.10	0.09	0.10	0.10	0.29	0.30	0.29	0.29
93	0.15	0.13	0.12	0.11	0.11	0.11	0.32	0.33	0.32	0.31
94	0.19	0.17	0.14	0.13	0.14	0.14	0.35	0.36	0.35	0.35
95	0.20	0.18	0.15	0.15	0.15	0.16	0.40	0.40	0.39	0.39
96	0.22	0.19	0.17	0.17	0.17	0.17	0.44	0.46	0.45	0.45
97	0.25	0.22	0.20	0.20	0.20	0.20	0.50	0.52	0.51	0.51
98	0.27	0.25	0.23	0.23	0.23	0.23	0.56	0.58	0.57	0.58
99	0.29	0.28	0.25	0.25	0.25	0.25	0.64	0.66	0.64	0.65
100	0.32	0.30	0.28	0.28	0.28	0.28	0.72	0.74	0.72	0.73
101	0.35	0.33	0.31	0.31	0.31	0.31	0.81	0.84	0.82	0.82
102	0.38	0.36	0.34	0.34	0.34	0.34	0.91	0.94	0.92	0.92
103	0.41	0.40	0.38	0.38	0.38	0.37	1.02	1.06	1.03	1.03
104	0.45	0.44	0.42	0.42	0.42	0.41	1.15	1.18	1.15	1.16
105	0.49	0.48	0.46	0.46	0.46	0.45	1.26	1.29	1.27	1.27
106	0.53	0.52	0.51	0.50	0.51	0.49	1.37	1.39	1.37	1.37
107	0.59	0.58	0.56	0.56	0.56	0.55	1.47	1.49	1.47	1.48
108	0.65	0.64	0.62	0.62	0.62	0.60	1.56	1.59	1.58	1.58
109	0.72	0.71	0.69	0.69	0.69	0.66	1.66	1.69	1.68	1.69

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110	0.79	0.78	0.77	0.76	0.76	0.73	1.76	1.79	1.79	1.80
111	0.88	0.86	0.85	0.84	0.83	0.80	1.85	1.89	1.90	1.92
112	0.97	0.95	0.94	0.92	0.92	0.88	1.95	1.99	2.01	2.05
113	1.06	1.05	1.04	1.02	1.00	0.97	2.05	2.11	2.13	2.17
114	1.17	1.16	1.14	1.12	1.10	1.06	2.17	2.23	2.25	2.30
115	1.27	1.26	1.25	1.23	1.20	1.16	2.29	2.35	2.38	2.44
116	1.39	1.38	1.37	1.34	1.31	1.27	2.41	2.49	2.52	2.60
117	1.50	1.50	1.50	1.46	1.42	1.38	2.55	2.68	2.71	2.77
118	1.63	1.63	1.62	1.58	1.55	1.50	2.82	2.88	2.90	2.95
119	1.75	1.76	1.75	1.71	1.68	1.63	3.00	3.06	3.08	3.14
120	1.89	1.90	1.89	1.84	1.82	1.75	3.17	3.25	3.26	3.33
121	2.02	2.04	2.02	1.97	1.96	1.88	3.34	3.43	3.44	3.53
122	2.16	2.18	2.16	2.11	2.11	2.02	3.51	3.61	3.61	3.73
123	2.30	2.32	2.30	2.25	2.25	2.15	3.69	3.82	3.80	3.94
124	2.44	2.46	2.43	2.38	2.40	2.29	3.90	4.02	4.01	4.16
125	2.58	2.59	2.57	2.52	2.55	2.42	4.10	4.24	4.23	4.39
126	2.72	2.74	2.71	2.66	2.69	2.56	4.32	4.45	4.46	4.63
127	2.87	2.89	2.86	2.80	2.84	2.72	4.54	4.67	4.71	4.87
128	3.02	3.03	3.01	2.94	3.00	2.90	4.77	4.93	4.98	5.12
129	3.17	3.18	3.17	3.09	3.16	3.08	5.01	5.20	5.25	5.37
130	3.34	3.35	3.34	3.24	3.33	3.27	5.26	5.47	5.54	5.64
131	3.50	3.52	3.50	3.40	3.48	3.45	5.53	5.72	5.81	5.93
132	3.68	3.70	3.66	3.56	3.64	3.65	5.78	5.97	6.08	6.20
133	3.87	3.89	3.83	3.73	3.80	3.84	5.99	6.21	6.33	6.48
134	4.05	4.07	4.00	3.93	3.96	4.04	6.19	6.45	6.57	6.74
135	4.19	4.24	4.15	4.12	4.10	4.21	6.39	6.66	6.80	6.98
136	4.35	4.39	4.31	4.32	4.26	4.40	6.61	6.87	7.01	7.20
137	4.53	4.54	4.47	4.52	4.43	4.60	6.81	7.09	7.23	7.44
138	4.71	4.71	4.64	4.73	4.61	4.78	7.00	7.31	7.45	7.69
139	4.90	4.89	4.83	4.92	4.78	4.98	7.25	7.52	7.65	7.92
140	5.07	5.06	5.02	5.08	4.96	5.15	7.45	7.72	7.84	8.12
141	5.29	5.24	5.22	5.25	5.15	5.34	7.63	7.94	8.05	8.34
142	5.47	5.44	5.44	5.42	5.34	5.52	7.86	8.18	8.29	8.55
143	5.64	5.64	5.67	5.58	5.53	5.70	8.08	8.43	8.54	8.76
144	5.81	5.86	5.87	5.75	5.72	5.89	8.30	8.71	8.77	8.98
145	6.00	6.06	6.02	5.94	5.90	6.06	8.60	8.99	9.00	9.21
146	6.16	6.25	6.16	6.13	6.08	6.24	8.87	9.25	9.22	9.45
147	6.29	6.39	6.28	6.32	6.26	6.41	9.13	9.46	9.42	9.71
148	6.37	6.50	6.38	6.49	6.41	6.58	9.38	9.66	9.63	9.96
149	6.44	6.59	6.52	6.66	6.60	6.73	9.60	9.85	9.83	10.20
150	6.51	6.68	6.68	6.84	6.81	6.87	9.82	10.03	10.08	10.44
151	6.61	6.80	6.85	7.02	7.03	7.02	10.02	10.21	10.35	10.64
152	6.72	6.97	7.02	7.19	7.30	7.16	10.25	10.39	10.63	10.82
153	6.83	7.11	7.18	7.35	7.55	7.28	10.43	10.56	10.93	11.01
154	6.90	7.24	7.33	7.48	7.76	7.43	10.61	10.74	11.21	11.19
155	6.91	7.36	7.47	7.61	7.96	7.62	10.81	10.99	11.46	11.37
156	6.93	7.47	7.59	7.74	8.12	7.83	11.03	11.27	11.67	11.55
157	6.97	7.58	7.73	7.91	8.23	8.02	11.30	11.51	11.82	11.74
158	7.01	7.70	7.85	8.08	8.32	8.21	11.57	11.74	11.97	11.95
159	7.06	7.80	7.95	8.24	8.37	8.30	11.82	11.90	12.11	12.13
160	7.12	7.87	8.07	8.37	8.41	8.35	11.99	12.00	12.19	12.29
161	7.15	7.94	8.16	8.48	8.43	8.40	12.04	12.05	12.23	12.40
162	7.22	8.01	8.24	8.54	8.44	8.44	12.03	12.05	12.24	12.45
163	7.39	8.11	8.38	8.63	8.49	8.52	12.02	12.05	12.24	12.47
164	7.63	8.25	8.54	8.72	8.57	8.64	12.01	12.08	12.27	12.51
165	7.90	8.41	8.71	8.83	8.71	8.77	12.03	12.16	12.33	12.57

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED200DHV50.IES**

**CANDELA TABULATION - (Cont.)**

166	8.16	8.62	8.90	8.99	8.90	8.95	12.01	12.22	12.41	12.60
167	8.33	8.80	9.02	9.07	9.04	9.11	12.00	12.24	12.45	12.60
168	8.47	8.91	9.12	9.11	9.13	9.23	12.00	12.22	12.42	12.52
169	8.61	8.91	9.14	9.15	9.19	9.30	11.94	12.12	12.32	12.36
170	8.70	8.77	9.07	9.12	9.15	9.28	11.89	12.03	12.20	12.26
171	8.72	8.63	9.02	9.08	9.10	9.24	11.89	12.02	12.18	12.20
172	8.79	8.75	9.13	9.15	9.20	9.33	11.91	12.01	12.16	12.12
173	8.93	8.98	9.34	9.35	9.39	9.53	11.83	11.95	12.08	11.98
174	9.20	9.31	9.64	9.74	9.77	9.94	11.81	11.95	12.03	11.92
175	9.48	9.70	10.04	10.13	10.22	10.39	11.79	11.91	11.99	11.85
176	9.72	9.92	10.30	10.30	10.47	10.69	11.64	11.80	11.87	11.73
177	9.97	10.07	10.45	10.45	10.60	10.83	11.53	11.69	11.77	11.63
178	10.15	10.12	10.50	10.53	10.61	10.86	11.30	11.48	11.53	11.43
179	10.44	10.21	10.43	10.60	10.65	10.91	11.18	11.38	11.44	11.34
180	10.72	10.72	10.72	10.72	10.72	10.72	10.72	10.72	10.72	10.72

**Vert. Angles**      **Horizontal Angles**

	<u>150</u>	<u>165</u>	<u>180</u>	<u>195</u>	<u>210</u>	<u>225</u>	<u>240</u>	<u>255</u>	<u>270</u>	<u>285</u>
0	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17	12452.17
1	12439.87	12449.15	12449.95	12465.66	12467.78	12472.41	12482.06	12481.04	12483.07	12481.18
2	12428.81	12443.60	12458.47	12480.98	12493.35	12501.86	12515.58	12517.53	12522.51	12519.41
3	12424.59	12446.60	12473.36	12499.57	12517.74	12540.07	12558.68	12559.82	12564.98	12560.11
4	12424.91	12454.20	12484.07	12520.36	12548.25	12576.65	12598.79	12606.32	12609.94	12600.75
5	12420.40	12461.02	12498.06	12547.09	12583.87	12616.91	12643.31	12658.64	12656.85	12644.25
6	12423.18	12472.07	12518.49	12575.58	12619.22	12661.46	12690.12	12711.60	12707.98	12700.27
7	12424.30	12481.43	12532.74	12606.39	12650.22	12705.48	12737.45	12757.44	12763.30	12748.41
8	12430.37	12495.58	12561.82	12634.39	12690.89	12746.71	12785.23	12810.45	12814.40	12798.89
9	12439.24	12514.57	12587.38	12667.16	12726.13	12792.21	12839.75	12866.86	12871.18	12854.77
10	12445.53	12528.11	12610.31	12701.93	12776.25	12840.87	12892.63	12918.83	12922.28	12908.76
11	12452.52	12549.20	12633.58	12736.06	12812.63	12890.47	12941.97	12974.25	12978.16	12962.55
12	12468.78	12566.62	12663.89	12769.96	12859.78	12936.07	12993.89	13028.49	13033.83	13018.49
13	12483.66	12591.59	12695.25	12813.76	12895.89	12983.30	13048.41	13081.72	13085.51	13075.75
14	12502.14	12611.81	12721.47	12852.83	12946.00	13040.01	13099.39	13135.78	13145.62	13125.46
15	12518.15	12637.18	12756.84	12888.57	12994.94	13088.38	13148.95	13190.67	13197.78	13175.43
16	12538.48	12666.93	12790.35	12928.69	13032.76	13131.56	13202.19	13244.76	13249.62	13232.61
17	12562.32	12696.13	12821.41	12971.94	13079.52	13186.91	13253.19	13299.31	13298.14	13281.02
18	12587.70	12731.42	12859.11	13008.00	13125.98	13227.59	13301.30	13345.14	13348.66	13328.09
19	12620.42	12762.04	12902.06	13053.56	13166.45	13272.99	13347.87	13392.73	13397.06	13370.79
20	12651.50	12796.88	12943.87	13093.37	13211.09	13316.70	13394.30	13436.84	13441.48	13416.70
21	12680.43	12833.65	12975.34	13131.43	13254.07	13361.66	13438.16	13478.40	13480.48	13455.30
22	12710.68	12864.74	13013.19	13170.45	13294.21	13396.94	13473.04	13514.28	13518.37	13499.58
23	12749.91	12908.31	13052.27	13207.34	13329.86	13433.37	13508.60	13551.51	13545.47	13528.00
24	12778.34	12942.20	13084.25	13241.50	13365.51	13464.77	13535.59	13577.45	13572.28	13549.61
25	12811.48	12969.23	13116.08	13270.60	13391.65	13490.65	13558.11	13597.68	13591.28	13568.43
26	12841.15	13000.99	13144.65	13298.70	13416.47	13506.11	13570.49	13608.51	13597.07	13578.28
27	12867.55	13022.40	13168.09	13313.29	13433.77	13514.84	13577.47	13611.60	13596.15	13583.96
28	12887.53	13039.19	13183.29	13321.74	13428.80	13516.53	13576.41	13598.19	13580.89	13570.99
29	12905.24	13049.72	13191.22	13322.21	13423.67	13501.67	13558.91	13574.22	13551.02	13544.73
30	12909.03	13052.77	13183.06	13311.35	13399.41	13470.11	13526.44	13536.83	13510.43	13512.90
31	12907.52	13039.62	13165.45	13280.41	13362.98	13424.03	13476.36	13482.83	13452.86	13457.59
32	12891.77	13016.78	13129.17	13232.94	13312.21	13363.76	13412.28	13409.77	13378.65	13390.80
33	12859.55	12980.66	13082.87	13176.52	13238.24	13279.84	13335.81	13324.25	13289.18	13306.85
34	12813.48	12914.49	13018.93	13100.33	13151.05	13177.84	13222.87	13208.02	13172.67	13200.82
35	12743.41	12835.43	12923.82	12995.10	13034.62	13053.63	13089.74	13071.01	13031.56	13067.24
36	12645.69	12727.73	12814.84	12859.20	12890.23	12893.43	12930.40	12906.56	12863.06	12908.23

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

37	12525.26	12592.38	12661.27	12699.44	12713.06	12708.42	12738.37	12710.14	12653.49	12716.27
38	12366.48	12422.39	12482.43	12499.06	12498.49	12494.33	12511.70	12485.89	12429.00	12490.01
39	12172.85	12212.14	12266.54	12270.87	12250.16	12234.77	12254.83	12220.01	12159.50	12228.59
40	11940.19	11968.17	12004.23	11996.34	11962.83	11938.94	11957.23	11917.70	11847.81	11929.73
41	11657.56	11672.80	11697.87	11672.85	11632.85	11595.15	11621.77	11574.02	11495.79	11594.32
42	11327.09	11331.27	11345.78	11299.78	11262.35	11211.27	11236.53	11177.41	11096.43	11204.27
43	10944.92	10931.76	10941.06	10884.48	10836.58	10782.43	10801.35	10749.45	10650.94	10777.65
44	10493.55	10479.48	10487.42	10402.76	10368.06	10291.51	10321.14	10267.15	10167.94	10310.59
45	9978.95	9959.88	9958.23	9879.39	9838.11	9767.30	9797.45	9742.47	9633.26	9787.44
46	9413.11	9386.21	9395.08	9309.48	9273.45	9196.91	9232.33	9178.74	9067.49	9236.71
47	8789.26	8762.20	8753.79	8687.45	8652.11	8582.62	8618.34	8582.60	8482.44	8646.63
48	8135.51	8088.85	8096.38	8031.69	8009.91	7934.61	7985.59	7946.66	7841.07	8026.92
49	7420.79	7395.97	7409.98	7350.74	7330.97	7269.78	7336.74	7298.81	7174.61	7378.05
50	6709.48	6684.09	6707.32	6656.48	6654.63	6592.73	6658.50	6633.62	6510.29	6719.94
51	5990.45	5972.70	6007.51	5971.43	5960.48	5921.56	5987.83	5963.21	5836.82	6057.41
52	5258.08	5272.97	5306.58	5270.41	5279.46	5248.06	5323.92	5285.89	5175.60	5390.88
53	4582.56	4597.34	4628.76	4601.07	4610.53	4600.23	4663.59	4636.55	4524.13	4736.95
54	3907.20	3925.50	3967.50	3949.01	3971.77	3961.41	4026.52	3994.98	3897.05	4099.21
55	3285.37	3299.49	3338.87	3335.41	3374.57	3364.23	3423.33	3396.08	3293.23	3492.03
56	2692.17	2704.60	2764.18	2779.95	2823.98	2819.39	2865.97	2818.20	2735.08	2918.71
57	2245.37	2181.97	2319.29	2276.20	2390.15	2316.04	2416.33	2308.88	2227.39	2451.76
58	1798.57	1725.97	1874.40	1832.55	1956.32	1874.35	1966.68	1854.29	1780.38	1984.81
59	1355.11	1358.49	1430.33	1445.23	1522.82	1484.80	1517.12	1463.90	1392.23	1518.28
60	1057.61	1062.92	1119.24	1127.01	1188.32	1162.58	1187.77	1146.00	1076.49	1179.58
61	832.19	889.38	875.37	932.44	921.46	898.94	926.87	896.31	897.30	905.86
62	668.42	716.39	689.74	739.11	713.41	731.36	732.11	735.90	721.00	705.92
63	555.90	543.40	559.34	545.78	569.50	566.33	596.69	576.36	544.71	570.43
64	476.49	465.01	475.17	462.05	477.88	480.66	508.88	496.45	475.68	486.32
65	421.37	414.86	422.51	411.74	423.17	431.31	456.74	449.51	433.60	434.98
66	383.80	383.47	388.85	381.41	390.14	400.56	423.71	419.39	404.35	403.00
67	356.97	360.00	364.98	358.91	366.27	377.71	398.66	397.05	380.55	378.80
68	335.36	339.93	345.06	339.91	346.02	357.43	376.18	377.11	359.87	357.80
69	317.27	321.84	327.03	322.74	328.98	339.81	356.29	358.85	341.81	338.37
70	302.50	306.32	311.76	307.56	313.42	323.76	338.57	342.09	325.56	321.13
71	286.89	290.27	294.25	291.21	297.47	306.59	321.56	325.69	310.14	305.97
72	272.31	274.98	278.82	275.48	282.00	290.13	305.19	308.24	295.02	290.73
73	259.62	259.94	263.69	259.80	266.78	273.20	288.33	291.29	279.08	275.43
74	244.28	243.29	246.79	243.66	249.63	255.22	269.19	272.67	262.48	259.92
75	226.58	226.59	229.41	227.94	232.38	238.05	250.89	254.18	244.33	243.36
76	208.88	209.83	212.03	212.30	215.12	220.78	231.25	235.75	225.44	226.71
77	191.19	192.81	194.66	196.50	197.88	204.26	211.60	217.03	206.15	210.06
78	173.60	176.08	177.82	180.43	181.31	187.67	192.00	197.64	187.11	193.41
79	157.34	160.38	161.34	164.79	165.41	171.54	174.01	178.74	168.77	176.55
80	142.68	144.81	146.16	149.25	150.48	156.02	157.38	160.90	151.49	159.59
81	127.52	129.13	130.99	133.89	135.27	139.58	139.76	142.73	134.97	142.62
82	111.85	113.38	115.46	117.54	119.44	122.84	122.37	123.87	117.98	125.89
83	97.04	98.57	100.62	102.49	104.12	106.28	105.89	105.65	99.57	108.91
84	81.19	83.32	84.78	86.73	88.84	87.31	86.94	85.58	79.41	90.48
85	65.29	68.06	69.09	70.96	71.61	68.25	65.65	65.45	59.25	69.45
86	49.59	52.81	53.56	55.19	53.44	49.20	46.55	45.32	39.08	48.84
87	33.19	36.92	35.81	37.29	36.10	29.12	31.15	24.04	19.03	32.99
88	16.78	14.38	18.06	13.46	18.77	11.24	15.75	6.09	12.74	17.14
89	0.73	0.38	0.59	8.91	1.74	5.74	0.43	3.17	6.51	1.32
90	0.24	0.11	0.23	4.59	0.22	0.24	0.23	0.26	0.28	0.12
91	0.26	0.19	0.25	0.26	0.23	0.23	0.23	0.24	0.08	0.08
92	0.28	0.27	0.27	0.26	0.25	0.25	0.25	0.26	0.09	0.09

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

93	0.30	0.30	0.29	0.29	0.28	0.28	0.27	0.28	0.15	0.10
94	0.34	0.33	0.32	0.32	0.31	0.31	0.30	0.31	0.17	0.12
95	0.38	0.37	0.36	0.36	0.34	0.34	0.34	0.35	0.18	0.13
96	0.43	0.42	0.41	0.40	0.39	0.39	0.39	0.39	0.20	0.15
97	0.50	0.48	0.46	0.46	0.45	0.45	0.44	0.45	0.23	0.18
98	0.56	0.54	0.52	0.52	0.51	0.51	0.50	0.51	0.24	0.21
99	0.63	0.61	0.59	0.59	0.58	0.57	0.57	0.58	0.26	0.23
100	0.71	0.70	0.67	0.67	0.65	0.65	0.64	0.65	0.29	0.25
101	0.80	0.79	0.76	0.76	0.74	0.74	0.73	0.74	0.32	0.28
102	0.90	0.89	0.86	0.86	0.84	0.84	0.83	0.84	0.35	0.31
103	1.02	1.00	0.97	0.97	0.95	0.95	0.94	0.95	0.38	0.35
104	1.14	1.12	1.09	1.09	1.07	1.06	1.05	1.07	0.41	0.38
105	1.25	1.24	1.21	1.20	1.18	1.18	1.16	1.18	0.45	0.42
106	1.36	1.34	1.31	1.30	1.28	1.28	1.26	1.28	0.49	0.46
107	1.46	1.44	1.41	1.41	1.38	1.38	1.36	1.38	0.54	0.51
108	1.57	1.55	1.53	1.51	1.49	1.49	1.46	1.48	0.59	0.57
109	1.68	1.67	1.64	1.63	1.61	1.60	1.57	1.58	0.65	0.62
110	1.80	1.79	1.76	1.75	1.73	1.72	1.68	1.68	0.72	0.69
111	1.93	1.92	1.89	1.88	1.85	1.84	1.79	1.79	0.79	0.75
112	2.05	2.06	2.03	2.02	1.99	1.97	1.90	1.90	0.87	0.82
113	2.19	2.19	2.17	2.16	2.13	2.09	2.02	2.01	0.95	0.89
114	2.33	2.34	2.32	2.31	2.27	2.23	2.15	2.13	1.04	0.95
115	2.47	2.49	2.48	2.47	2.42	2.37	2.28	2.25	1.15	1.04
116	2.63	2.65	2.64	2.63	2.58	2.51	2.42	2.38	1.25	1.14
117	2.78	2.82	2.81	2.80	2.74	2.67	2.59	2.57	1.36	1.26
118	2.96	2.99	2.99	2.97	2.91	2.85	2.75	2.76	1.48	1.38
119	3.14	3.17	3.16	3.15	3.08	3.03	2.93	2.93	1.60	1.49
120	3.35	3.35	3.35	3.33	3.28	3.21	3.11	3.11	1.73	1.62
121	3.55	3.53	3.54	3.52	3.48	3.38	3.30	3.29	1.87	1.76
122	3.76	3.76	3.74	3.72	3.67	3.55	3.47	3.45	2.00	1.89
123	4.00	4.00	3.95	3.96	3.86	3.73	3.65	3.63	2.13	2.03
124	4.24	4.26	4.17	4.18	4.06	3.93	3.83	3.81	2.27	2.16
125	4.48	4.53	4.48	4.43	4.27	4.14	4.02	4.01	2.42	2.32
126	4.73	4.79	4.80	4.69	4.50	4.36	4.23	4.20	2.56	2.46
127	4.98	5.06	5.07	4.94	4.74	4.59	4.45	4.39	2.70	2.60
128	5.25	5.34	5.34	5.20	4.99	4.82	4.68	4.61	2.84	2.74
129	5.53	5.61	5.60	5.46	5.24	5.05	4.89	4.83	3.01	2.91
130	5.81	5.88	5.86	5.71	5.49	5.28	5.13	5.08	3.19	3.08
131	6.09	6.16	6.10	5.95	5.72	5.51	5.38	5.35	3.39	3.27
132	6.34	6.43	6.32	6.17	5.95	5.72	5.63	5.58	3.59	3.46
133	6.60	6.68	6.57	6.39	6.15	5.93	5.84	5.78	3.80	3.68
134	6.85	6.91	6.80	6.60	6.33	6.15	6.04	5.97	4.01	3.90
135	7.09	7.11	6.98	6.82	6.52	6.34	6.22	6.16	4.20	4.10
136	7.32	7.29	7.16	7.01	6.72	6.55	6.39	6.36	4.38	4.30
137	7.55	7.48	7.33	7.18	6.93	6.79	6.54	6.57	4.58	4.51
138	7.77	7.71	7.51	7.36	7.15	6.99	6.78	6.78	4.78	4.73
139	7.97	7.90	7.72	7.52	7.37	7.24	7.01	7.04	4.96	4.93
140	8.15	8.10	7.91	7.69	7.55	7.42	7.21	7.26	5.14	5.13
141	8.36	8.30	8.13	7.89	7.77	7.63	7.41	7.47	5.32	5.34
142	8.60	8.51	8.35	8.06	8.01	7.85	7.64	7.70	5.51	5.56
143	8.85	8.72	8.58	8.22	8.25	8.05	7.87	7.95	5.71	5.78
144	9.09	8.95	8.82	8.39	8.46	8.25	8.09	8.18	5.90	5.99
145	9.33	9.19	9.05	8.62	8.65	8.49	8.31	8.49	6.07	6.18
146	9.56	9.42	9.28	8.92	8.87	8.71	8.55	8.74	6.24	6.36
147	9.77	9.66	9.52	9.24	9.05	8.97	8.80	8.94	6.40	6.53
148	9.97	9.88	9.75	9.53	9.25	9.23	9.01	9.15	6.56	6.68



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED200DHV50.IES**

**CANDELA TABULATION - (Cont.)**

149	10.17	10.10	9.95	9.76	9.42	9.48	9.33	9.38	6.72	6.84
150	10.37	10.28	10.04	9.95	9.60	9.75	9.65	9.61	6.90	7.01
151	10.57	10.45	10.13	10.10	9.77	9.99	9.96	9.84	7.10	7.20
152	10.73	10.62	10.32	10.26	9.98	10.17	10.26	10.07	7.28	7.39
153	10.91	10.81	10.47	10.45	10.25	10.33	10.55	10.25	7.42	7.56
154	11.11	10.98	10.60	10.64	10.52	10.51	10.84	10.43	7.55	7.72
155	11.28	11.13	10.71	10.81	10.72	10.69	11.12	10.62	7.66	7.87
156	11.44	11.23	10.79	10.93	10.89	10.84	11.35	10.88	7.79	8.01
157	11.59	11.37	10.88	10.99	11.00	10.97	11.55	11.14	7.96	8.15
158	11.73	11.53	10.99	11.08	11.10	11.09	11.69	11.38	8.11	8.28
159	11.87	11.68	11.10	11.22	11.20	11.25	11.77	11.61	8.23	8.41
160	11.97	11.80	11.22	11.32	11.31	11.45	11.83	11.75	8.29	8.46
161	12.04	11.85	11.29	11.36	11.39	11.59	11.86	11.81	8.32	8.49
162	12.09	11.86	11.32	11.33	11.42	11.63	11.85	11.84	8.33	8.51
163	12.15	11.88	11.41	11.31	11.43	11.62	11.86	11.84	8.40	8.59
164	12.22	11.91	11.53	11.38	11.46	11.63	11.85	11.88	8.52	8.74
165	12.32	11.98	11.63	11.52	11.49	11.65	11.88	11.92	8.65	8.89
166	12.39	12.04	11.70	11.63	11.52	11.72	11.92	11.91	8.84	9.06
167	12.40	12.01	11.71	11.59	11.49	11.65	11.92	11.89	9.01	9.24
168	12.35	11.91	11.70	11.52	11.36	11.59	11.91	11.86	9.15	9.35
169	12.24	11.74	11.60	11.52	11.25	11.58	11.83	11.73	9.26	9.45
170	12.13	11.60	11.50	11.49	11.03	11.44	11.73	11.63	9.23	9.46
171	12.06	11.53	11.41	11.53	10.99	11.47	11.72	11.69	9.22	9.45
172	12.02	11.53	11.23	11.55	11.06	11.50	11.74	11.74	9.35	9.55
173	11.93	11.46	11.03	11.49	11.01	11.46	11.66	11.70	9.60	9.75
174	11.86	11.41	10.93	11.38	10.96	11.44	11.61	11.71	10.05	10.15
175	11.80	11.30	10.94	11.23	10.93	11.39	11.54	11.69	10.48	10.60
176	11.72	11.23	10.97	11.05	10.84	11.25	11.35	11.54	10.71	10.93
177	11.55	11.13	10.94	10.85	10.77	11.12	11.17	11.37	10.92	11.21
178	11.28	10.97	10.78	10.53	10.63	10.89	10.90	11.12	10.96	11.27
179	11.16	10.90	10.76	10.41	10.58	10.76	10.80	11.04	11.02	11.29
180	10.72	10.72	10.72	10.72	10.72	10.72	10.72	10.72	10.72	10.72

**Vert. Angles**      **Horizontal Angles**

	<u>300</u>	<u>315</u>	<u>330</u>	<u>345</u>	<u>360</u>
0	12452.17	12452.17	12452.17	12452.17	12452.17
1	12482.93	12471.29	12469.64	12463.98	12452.54
2	12516.21	12499.54	12489.43	12476.98	12457.14
3	12553.08	12529.05	12515.07	12495.42	12466.64
4	12589.82	12568.67	12550.22	12516.55	12478.67
5	12638.26	12601.59	12577.07	12543.31	12492.90
6	12684.15	12649.94	12612.29	12567.12	12508.45
7	12730.08	12688.74	12649.17	12590.94	12529.21
8	12775.59	12727.88	12687.20	12625.87	12550.64
9	12828.63	12773.84	12724.00	12656.06	12568.17
10	12879.75	12822.54	12762.50	12689.71	12593.31
11	12930.21	12870.39	12807.68	12724.20	12622.43
12	12980.08	12917.28	12849.07	12759.81	12649.33
13	13033.04	12965.94	12891.65	12797.66	12679.88
14	13081.18	13015.51	12939.29	12839.76	12715.50
15	13131.83	13060.81	12982.30	12879.97	12746.07
16	13185.11	13109.37	13024.70	12920.03	12778.61
17	13232.97	13159.80	13071.16	12962.76	12818.23
18	13280.38	13205.45	13117.18	13006.35	12855.27
19	13324.46	13245.58	13159.96	13047.76	12891.37

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

20	13367.73	13291.90	13199.10	13084.72	12928.55
21	13405.04	13330.27	13236.77	13121.54	12969.33
22	13441.45	13363.15	13270.96	13160.26	13003.21
23	13470.38	13389.30	13300.89	13191.33	13033.34
24	13495.51	13422.61	13329.19	13223.13	13067.86
25	13510.29	13441.56	13355.12	13244.74	13094.88
26	13517.52	13457.65	13370.43	13264.25	13117.36
27	13525.22	13459.73	13378.14	13270.67	13135.50
28	13512.05	13455.73	13371.40	13281.23	13150.12
29	13489.60	13437.17	13359.13	13273.09	13147.14
30	13455.19	13402.25	13337.29	13256.15	13138.04
31	13406.34	13360.48	13292.91	13219.04	13108.66
32	13335.76	13300.63	13236.13	13168.33	13071.89
33	13254.47	13224.20	13161.54	13101.79	13012.29
34	13146.60	13119.80	13067.85	13016.02	12937.40
35	13014.15	12988.90	12948.98	12904.04	12836.98
36	12851.32	12830.94	12796.24	12769.74	12711.31
37	12650.76	12642.58	12615.02	12598.29	12552.87
38	12421.63	12427.70	12403.41	12395.77	12363.37
39	12157.35	12169.84	12158.15	12157.20	12138.80
40	11858.28	11876.68	11871.67	11885.12	11871.35
41	11515.26	11546.38	11543.31	11563.71	11552.66
42	11128.71	11163.95	11170.85	11198.09	11198.36
43	10692.56	10739.41	10756.88	10790.02	10784.68
44	10220.57	10263.06	10282.79	10318.65	10313.60
45	9700.74	9759.71	9775.17	9802.72	9786.53
46	9140.45	9202.95	9211.78	9232.64	9208.20
47	8552.17	8607.31	8613.84	8619.64	8589.97
48	7931.92	7977.77	7975.54	7987.51	7926.17
49	7276.19	7322.37	7303.65	7299.32	7229.86
50	6610.82	6651.87	6618.00	6599.00	6505.41
51	5948.30	5973.95	5921.05	5893.48	5800.14
52	5280.55	5303.24	5232.81	5195.21	5093.19
53	4623.39	4632.89	4548.83	4514.54	4413.50
54	3984.79	3990.31	3897.30	3851.49	3755.04
55	3377.05	3372.99	3275.31	3224.80	3130.46
56	2803.58	2792.26	2702.29	2644.68	2553.61
57	2283.16	2336.77	2179.37	2203.20	2038.88
58	1821.26	1881.29	1728.82	1761.72	1609.90
59	1434.94	1426.59	1344.39	1323.20	1247.91
60	1111.38	1099.92	1036.93	1012.74	956.30
61	870.12	846.81	861.56	778.02	799.13
62	707.10	658.82	688.28	608.60	644.42
63	545.72	536.19	514.99	505.69	489.72
64	471.46	462.25	451.38	446.41	437.33
65	426.56	420.02	414.63	411.05	403.42
66	395.92	392.12	387.92	385.68	377.56
67	371.61	370.20	365.48	364.04	355.82
68	350.46	350.04	345.37	344.68	336.42
69	331.53	331.95	327.70	327.15	319.56
70	315.02	314.94	311.21	310.80	303.42
71	299.23	300.00	296.35	295.57	287.83
72	284.06	284.89	281.52	280.23	271.69
73	268.33	269.56	266.68	264.19	255.15
74	252.50	254.00	250.99	247.66	238.36
75	235.94	237.50	233.91	230.85	220.65

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

76	218.76	220.93	216.12	214.03	203.68
77	202.73	204.35	198.53	197.21	187.21
78	186.61	187.79	181.31	180.92	171.11
79	170.79	171.81	164.78	164.64	155.45
80	154.90	156.04	149.08	148.68	139.98
81	138.87	139.99	133.54	132.52	125.29
82	123.08	124.33	118.74	116.86	111.02
83	106.31	108.67	103.64	101.90	95.82
84	86.18	92.69	87.45	86.10	80.27
85	66.04	75.02	71.25	70.97	64.71
86	45.90	56.79	55.05	56.20	49.15
87	28.03	39.35	39.38	38.31	34.34
88	12.93	21.90	20.81	20.41	14.44
89	8.48	4.57	13.89	2.93	9.60
90	4.30	0.11	7.07	0.09	4.86
91	0.12	0.08	0.25	0.08	0.11
92	0.09	0.09	0.09	0.09	0.10
93	0.10	0.10	0.10	0.12	0.15
94	0.12	0.12	0.12	0.14	0.19
95	0.13	0.13	0.14	0.16	0.20
96	0.15	0.14	0.16	0.18	0.22
97	0.18	0.18	0.19	0.21	0.25
98	0.20	0.21	0.22	0.24	0.27
99	0.22	0.23	0.24	0.26	0.29
100	0.25	0.25	0.26	0.29	0.32
101	0.28	0.28	0.29	0.32	0.35
102	0.31	0.31	0.33	0.35	0.38
103	0.35	0.35	0.36	0.38	0.41
104	0.38	0.38	0.40	0.42	0.45
105	0.42	0.42	0.44	0.46	0.49
106	0.47	0.47	0.49	0.51	0.53
107	0.52	0.52	0.54	0.56	0.59
108	0.57	0.58	0.60	0.62	0.65
109	0.63	0.64	0.67	0.69	0.72
110	0.70	0.71	0.74	0.77	0.79
111	0.77	0.78	0.82	0.85	0.88
112	0.85	0.85	0.90	0.94	0.97
113	0.93	0.94	0.98	1.03	1.06
114	1.02	1.03	1.06	1.13	1.17
115	1.12	1.14	1.16	1.24	1.27
116	1.23	1.25	1.27	1.35	1.39
117	1.34	1.37	1.40	1.46	1.50
118	1.46	1.49	1.54	1.58	1.63
119	1.58	1.61	1.68	1.70	1.75
120	1.71	1.74	1.83	1.83	1.89
121	1.85	1.87	1.97	1.95	2.02
122	1.99	2.00	2.12	2.07	2.16
123	2.12	2.14	2.26	2.17	2.30
124	2.25	2.28	2.42	2.28	2.44
125	2.39	2.42	2.57	2.40	2.58
126	2.53	2.55	2.73	2.55	2.72
127	2.70	2.69	2.90	2.72	2.87
128	2.87	2.82	3.06	2.90	3.02
129	3.04	2.97	3.24	3.09	3.17
130	3.22	3.11	3.41	3.30	3.34
131	3.40	3.25	3.57	3.51	3.50

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED200DHV50.IES**

**CANDELA TABULATION - (Cont.)**

132	3.57	3.40	3.73	3.72	3.68
133	3.72	3.55	3.88	3.93	3.87
134	3.88	3.69	4.01	4.12	4.05
135	4.04	3.84	4.14	4.29	4.19
136	4.23	4.03	4.29	4.44	4.35
137	4.41	4.27	4.46	4.62	4.53
138	4.58	4.54	4.67	4.83	4.71
139	4.75	4.76	4.89	5.03	4.90
140	4.95	4.91	5.10	5.22	5.07
141	5.17	5.06	5.30	5.41	5.29
142	5.38	5.20	5.51	5.59	5.47
143	5.57	5.35	5.72	5.75	5.64
144	5.77	5.54	5.89	5.90	5.81
145	5.99	5.75	6.01	6.04	6.00
146	6.20	5.95	6.11	6.19	6.16
147	6.39	6.14	6.19	6.34	6.29
148	6.56	6.32	6.26	6.48	6.37
149	6.76	6.48	6.34	6.61	6.44
150	6.96	6.62	6.41	6.72	6.51
151	7.19	6.76	6.52	6.83	6.61
152	7.41	6.90	6.66	6.94	6.72
153	7.62	7.02	6.82	7.08	6.83
154	7.78	7.11	6.98	7.20	6.90
155	7.93	7.22	7.12	7.31	6.91
156	8.07	7.34	7.20	7.38	6.93
157	8.17	7.47	7.27	7.41	6.97
158	8.23	7.61	7.34	7.43	7.01
159	8.26	7.75	7.42	7.46	7.06
160	8.28	7.89	7.52	7.47	7.12
161	8.30	8.00	7.63	7.50	7.15
162	8.34	8.12	7.75	7.57	7.22
163	8.47	8.26	7.88	7.73	7.39
164	8.61	8.44	8.04	7.94	7.63
165	8.79	8.65	8.24	8.17	7.90
166	8.98	8.88	8.48	8.40	8.16
167	9.14	9.11	8.66	8.59	8.33
168	9.32	9.23	8.75	8.65	8.47
169	9.44	9.37	8.75	8.70	8.61
170	9.46	9.42	8.72	8.74	8.70
171	9.45	9.42	8.74	8.80	8.72
172	9.54	9.53	8.91	8.94	8.79
173	9.74	9.74	9.14	9.13	8.93
174	10.15	10.13	9.58	9.49	9.20
175	10.56	10.55	10.01	9.85	9.48
176	10.83	10.79	10.30	10.18	9.72
177	11.05	11.00	10.51	10.46	9.97
178	11.17	11.11	10.68	10.61	10.15
179	11.27	11.21	10.84	10.73	10.44
180	10.72	10.72	10.72	10.72	10.72

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED200DHV50.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	4814.53	16.00	16.00
0-30	10857.41	36.10	36.10
0-40	18832.26	62.60	62.60
0-60	29274.57	97.30	97.30
0-80	30005.04	99.70	99.70
0-90	30075.18	99.90	99.90
10-90	28878.89	95.90	95.90
20-40	14017.73	46.60	46.60
20-50	21412.94	71.10	71.10
40-70	10933.39	36.30	36.30
60-80	730.47	2.40	2.40
70-80	239.38	0.80	0.80
80-90	70.14	0.20	0.20
90-110	1.24	0.00	0.00
90-120	3.05	0.00	0.00
90-130	6.09	0.00	0.00
90-150	14.87	0.00	0.00
90-180	23.01	0.10	0.10
110-180	21.76	0.10	0.10
0-180	30098.18	100.00	100.00

Total Luminaire Efficiency = 100.00%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1196.29
10-20	3618.24
20-30	6042.88
30-40	7974.86
40-50	7395.21
50-60	3047.1
60-70	491.08
70-80	239.38
80-90	70.14
90-100	0.36
100-110	0.89
110-120	1.80
120-130	3.04
130-140	4.16
140-150	4.62
150-160	4.24
160-170	2.89
170-180	1.01

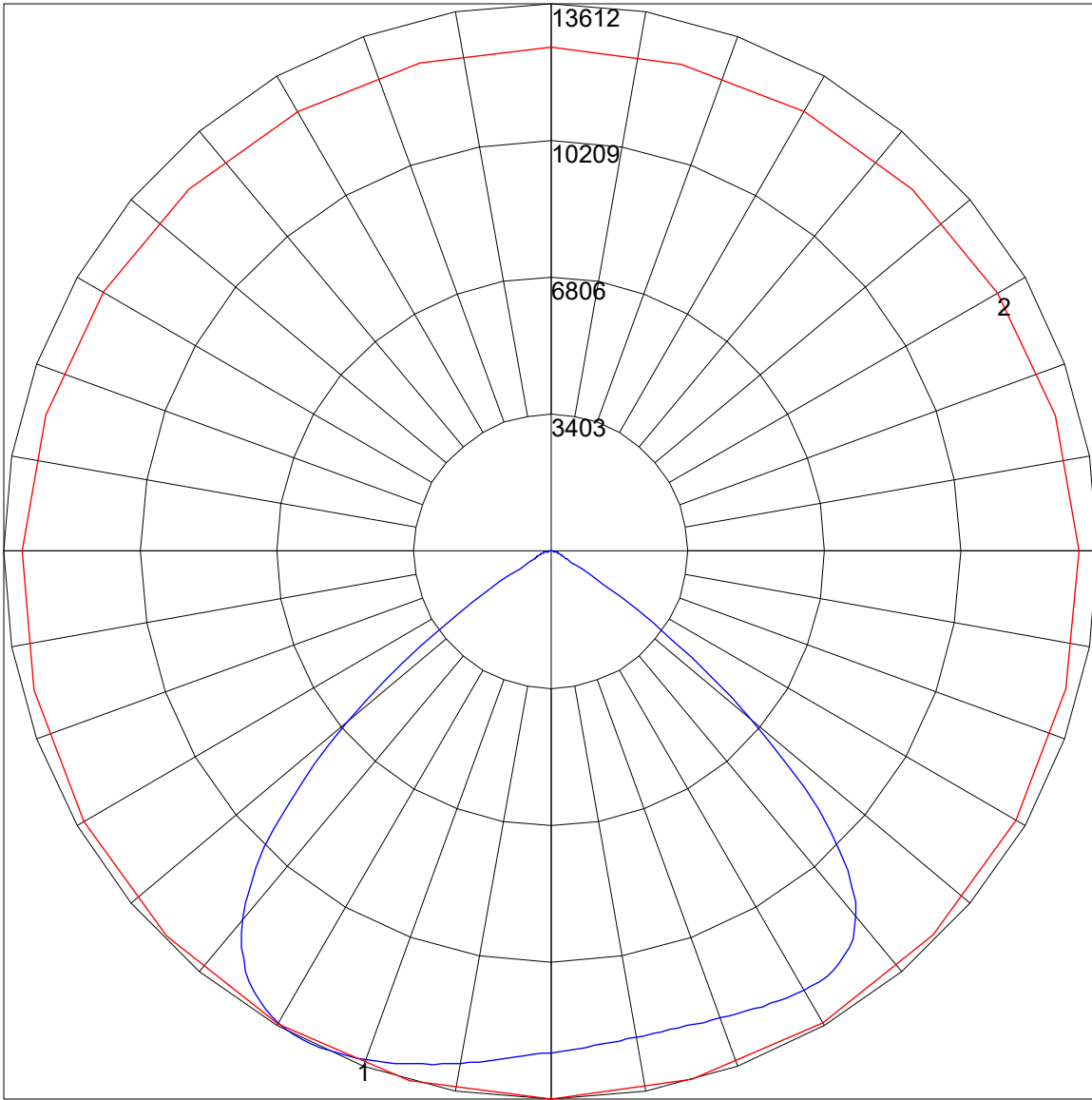
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED200DHV50.IES**

**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	92	88	101	96	91	87	92	88	85	89	86	83	86	84	81	79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70
4	89	79	72	67	87	78	71	66	76	70	65	74	69	65	72	67	64	62
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49
7	72	60	52	46	70	59	52	46	57	51	46	56	50	46	55	49	45	44
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39
9	62	50	43	38	61	50	43	38	49	42	37	48	42	37	47	41	37	35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

POLAR GRAPH



Maximum Candela = 13611.6 Located At Horizontal Angle = 255, Vertical Angle = 27  
# 1 - Vertical Plane Through Horizontal Angles (255 - 75) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (27) (Through Max. Cd.)