



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED135DHV40.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST]  
 [TESTLAB] Dongguan New Testing Centre Co., Ltd  
 [TESTDATE] 20 May 2019  
 [ISSUEDATE] 2019-05-20 09:06:03  
 [NEARFIELD]  
 [LAMPPOSITION] 0,0  
 [OTHER] EVERFINE GO-R5000\_V2 SYSTEM  
 [MANUFAC] Mobern Lighting Co.  
 [LUMCAT] HBRMSR-LED135DHV40  
 [MORE] MHB04  
 [LUMINAIRE] LED  
 [BALLAST] 347-480Vac,50/60Hz  
 [OTHER]  

[OTHER]	Gamma(deg)	Fz(lm)	Ft(lm)	%Lum	%Lamp
[OTHER]	0- 10	775.56	775.56	3.97	3.97
[OTHER]	10- 20	2336.05	3111.61	15.95	15.95
[OTHER]	20- 30	3883.14	6994.75	35.84	35.84
[OTHER]	30- 40	5135.58	12130.33	62.16	62.16
[OTHER]	40- 50	4848.96	16979.29	87.01	87.01
[OTHER]	50- 60	2057.59	19036.88	97.55	97.55
[OTHER]	60- 70	285.19	19322.08	99.01	99.01
[OTHER]	70- 80	137.73	19459.80	99.72	99.72
[OTHER]	80- 90	39.94	19499.74	99.93	99.93
[OTHER]	90-100	0.15	19499.89	99.93	99.93
[OTHER]	100-110	0.52	19500.41	99.93	99.93
[OTHER]	110-120	1.12	19501.53	99.93	99.93
[OTHER]	120-130	1.93	19503.46	99.94	99.94
[OTHER]	130-140	2.67	19506.13	99.96	99.96
[OTHER]	140-150	2.98	19509.11	99.97	99.97
[OTHER]	150-160	2.73	19511.83	99.99	99.99
[OTHER]	160-170	1.86	19513.69	100.00	100.00
[OTHER]	170-180	0.65	19514.34	100.00	100.00
[OTHER]					

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**CHARACTERISTICS**

Lumens Per Lamp	19514 (1 lamp)
Total Lamp Lumens	19514
Luminaire Lumens	19514
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	135.005
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.54
Spacing Criterion (90-270)	1.54
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	93005	91387	92729
55	39784	37841	38819
65	6250	5916	5871
75	5427	5322	5150
85	4692	4390	3260

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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>	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75
<b>1</b>	8096.69	8093.75	8094.96	8097.10	8090.72	8091.99	8090.15	8083.80	8083.07	8079.06
<b>2</b>	8108.00	8108.32	8109.65	8113.53	8104.69	8099.79	8098.49	8087.15	8081.74	8075.67
<b>3</b>	8128.72	8127.28	8126.28	8128.24	8119.64	8110.60	8102.42	8092.01	8083.44	8078.99
<b>4</b>	8147.78	8144.04	8145.97	8147.18	8136.17	8123.88	8113.00	8102.14	8087.58	8078.68
<b>5</b>	8165.97	8169.19	8164.99	8162.74	8150.00	8139.53	8123.67	8108.08	8091.40	8078.34
<b>6</b>	8187.21	8188.38	8183.99	8184.41	8168.46	8152.70	8137.39	8117.19	8097.58	8082.13
<b>7</b>	8207.56	8206.96	8203.42	8201.37	8186.11	8168.78	8147.44	8127.56	8105.51	8089.81
<b>8</b>	8229.98	8231.76	8225.09	8221.77	8201.77	8184.11	8164.74	8135.87	8113.22	8089.69
<b>9</b>	8252.35	8252.62	8248.62	8241.35	8222.89	8200.07	8175.84	8147.97	8120.53	8095.10
<b>10</b>	8274.13	8272.11	8270.97	8261.00	8238.86	8215.93	8190.56	8157.41	8127.99	8104.24
<b>11</b>	8298.97	8302.71	8290.83	8280.73	8258.56	8236.26	8207.63	8173.51	8139.79	8112.68
<b>12</b>	8317.73	8321.00	8316.16	8302.50	8279.37	8255.47	8220.59	8188.18	8149.22	8119.14
<b>13</b>	8341.26	8347.58	8339.06	8325.45	8298.71	8272.91	8239.83	8200.34	8159.20	8128.48
<b>14</b>	8366.54	8368.95	8361.75	8347.58	8321.93	8293.85	8255.25	8213.97	8174.97	8139.63
<b>15</b>	8390.54	8392.97	8386.16	8369.69	8341.67	8313.03	8272.98	8231.30	8188.12	8154.41
<b>16</b>	8413.43	8418.48	8408.52	8389.86	8361.44	8330.47	8288.39	8244.39	8204.05	8166.30
<b>17</b>	8440.58	8438.92	8427.55	8413.18	8384.01	8350.89	8311.75	8262.67	8218.03	8178.03
<b>18</b>	8461.54	8463.22	8452.48	8437.04	8405.28	8372.17	8328.78	8280.44	8236.51	8195.25
<b>19</b>	8482.38	8488.22	8471.11	8456.34	8425.25	8392.68	8349.64	8298.12	8249.37	8207.04
<b>20</b>	8505.77	8503.92	8494.48	8480.37	8444.24	8411.12	8367.21	8319.11	8267.51	8222.22
<b>21</b>	8524.65	8527.22	8512.17	8499.41	8462.15	8432.38	8387.38	8338.28	8285.64	8240.36
<b>22</b>	8545.93	8540.77	8533.66	8515.95	8481.10	8447.83	8405.57	8352.26	8301.23	8257.77
<b>23</b>	8559.58	8557.93	8549.07	8531.26	8496.41	8464.00	8420.72	8368.79	8318.51	8276.18
<b>24</b>	8575.70	8573.65	8561.86	8543.01	8512.90	8477.88	8437.21	8381.06	8333.09	8288.48
<b>25</b>	8586.80	8581.03	8572.83	8553.75	8521.96	8491.08	8450.71	8398.92	8348.39	8304.17
<b>26</b>	8590.28	8591.73	8580.92	8563.38	8532.65	8499.01	8462.20	8409.95	8360.47	8318.55
<b>27</b>	8596.12	8590.99	8577.92	8561.89	8528.72	8503.12	8469.59	8415.34	8371.54	8328.72
<b>28</b>	8588.10	8585.47	8570.47	8557.89	8526.36	8502.56	8467.93	8420.58	8377.53	8334.53
<b>29</b>	8575.06	8575.81	8561.17	8547.01	8518.72	8491.53	8467.66	8415.16	8378.19	8337.28
<b>30</b>	8562.41	8550.50	8537.21	8527.92	8502.39	8475.96	8457.63	8407.39	8372.36	8336.97
<b>31</b>	8532.46	8524.75	8507.85	8500.38	8469.91	8450.91	8436.77	8387.82	8359.04	8329.75
<b>32</b>	8496.51	8487.69	8468.51	8461.59	8429.21	8415.12	8408.78	8360.67	8338.83	8314.10
<b>33</b>	8449.86	8438.06	8419.55	8409.51	8382.43	8370.66	8370.24	8322.42	8310.51	8290.86
<b>34</b>	8388.15	8377.92	8352.34	8345.05	8325.38	8312.83	8320.79	8275.57	8269.14	8252.83
<b>35</b>	8314.63	8301.09	8277.11	8269.20	8247.72	8238.77	8256.91	8210.21	8212.59	8204.88
<b>36</b>	8227.15	8210.61	8182.52	8173.68	8156.88	8147.52	8178.66	8128.27	8141.38	8140.40
<b>37</b>	8118.50	8104.62	8072.74	8063.59	8046.19	8042.15	8079.91	8030.77	8051.63	8058.31
<b>38</b>	7995.55	7969.99	7942.52	7927.97	7909.10	7911.81	7959.40	7910.87	7937.07	7951.12
<b>39</b>	7843.42	7823.73	7785.20	7776.12	7753.94	7758.31	7814.97	7764.45	7801.45	7823.40
<b>40</b>	7666.60	7647.05	7601.52	7589.67	7570.34	7575.96	7648.40	7587.80	7641.75	7672.03
<b>41</b>	7462.85	7436.96	7392.02	7382.98	7358.87	7368.77	7447.99	7387.39	7451.12	7486.46
<b>42</b>	7224.55	7202.72	7151.94	7139.58	7122.47	7124.97	7221.00	7144.41	7220.30	7264.92
<b>43</b>	6960.23	6926.78	6885.89	6867.00	6841.88	6850.74	6952.06	6870.61	6957.74	7012.67
<b>44</b>	6660.11	6624.02	6575.89	6561.38	6526.03	6535.05	6650.27	6550.12	6648.25	6712.29
<b>45</b>	6329.97	6292.35	6246.22	6219.85	6184.89	6186.29	6311.17	6199.05	6300.56	6368.37
<b>46</b>	5964.56	5931.39	5870.42	5851.84	5801.63	5808.92	5926.52	5807.88	5920.22	5981.24
<b>47</b>	5579.56	5544.51	5480.73	5455.68	5406.88	5406.08	5531.81	5386.24	5492.06	5564.65
<b>48</b>	5169.00	5133.98	5065.11	5045.40	4986.76	4980.83	5102.92	4946.04	5051.97	5111.21
<b>49</b>	4753.61	4705.45	4644.33	4616.51	4552.48	4542.82	4656.53	4500.14	4598.54	4659.55
<b>50</b>	4322.71	4284.29	4211.98	4186.84	4120.09	4103.79	4202.44	4050.91	4145.13	4199.52
<b>51</b>	3895.24	3853.59	3773.52	3749.57	3682.26	3665.46	3764.49	3611.78	3700.71	3749.46
<b>52</b>	3470.36	3425.56	3352.29	3324.19	3263.34	3236.92	3331.83	3181.10	3269.38	3308.83
<b>53</b>	3047.47	3007.05	2928.47	2900.27	2841.86	2818.90	2902.21	2769.31	2851.23	2887.91

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**CANDELA TABULATION - (Cont.)**

54	2620.33	2578.92	2502.82	2477.47	2423.05	2437.28	2499.26	2375.88	2450.18	2471.17
55	2196.41	2195.92	2099.39	2089.15	2020.52	2055.66	2143.11	1995.62	2087.99	2075.20
56	1801.42	1812.93	1717.50	1701.19	1646.50	1675.23	1786.95	1639.32	1725.80	1700.01
57	1437.55	1429.94	1363.54	1357.52	1309.36	1330.69	1431.35	1305.98	1363.93	1349.73
58	1122.73	1116.65	1056.37	1055.45	1016.78	1032.76	1116.24	1008.45	1059.96	1037.10
59	913.31	858.34	862.62	811.32	823.72	779.90	845.55	808.96	798.27	828.57
60	705.88	655.92	670.38	615.25	633.71	584.99	629.80	612.16	586.33	622.31
61	498.45	502.40	478.15	472.93	443.70	440.98	473.91	415.36	433.99	416.18
62	399.85	397.81	380.70	372.98	351.35	344.44	362.88	322.68	335.89	323.75
63	331.84	329.18	317.72	308.08	293.24	285.79	295.70	269.95	279.61	271.54
64	286.56	282.98	275.56	266.93	258.08	251.94	257.01	241.25	248.14	243.67
65	254.25	251.34	246.71	240.66	235.12	234.96	238.81	222.79	232.28	225.46
66	231.81	234.10	226.17	223.55	218.40	217.97	220.61	209.30	216.41	211.06
67	215.00	216.85	210.49	206.45	205.02	201.01	202.63	197.39	200.64	198.67
68	201.10	199.69	197.66	195.25	193.27	189.63	190.95	187.28	189.70	187.99
69	190.29	188.69	187.44	185.35	182.95	179.72	181.13	178.35	180.19	178.81
70	180.54	179.77	178.31	176.61	173.59	170.36	171.78	170.23	171.72	170.75
71	172.73	172.51	170.89	169.09	164.52	161.56	163.35	162.06	163.35	163.06
72	164.16	164.49	164.64	162.37	156.17	152.59	155.04	153.64	154.81	154.92
73	154.32	155.09	157.33	153.17	147.95	143.80	146.61	144.27	145.31	145.50
74	145.15	145.48	147.93	142.60	138.95	134.89	137.82	134.75	135.77	135.85
75	135.19	135.42	136.17	132.59	128.93	125.82	128.30	125.08	125.58	125.86
76	124.66	125.23	124.82	123.00	118.44	117.20	118.38	115.65	114.74	116.04
77	113.98	115.36	114.18	114.16	108.54	108.12	108.72	106.02	104.58	106.47
78	103.84	105.42	104.02	104.56	98.95	98.65	98.45	95.94	95.02	96.99
79	94.08	96.12	93.63	95.16	89.46	88.70	88.17	86.31	85.66	87.78
80	84.98	86.91	84.56	85.57	79.98	78.85	78.83	76.69	76.49	78.59
81	75.89	77.81	75.52	76.36	70.50	69.39	69.67	67.06	67.68	69.39
82	66.79	68.71	66.88	67.02	61.22	59.58	60.54	57.89	58.76	60.71
83	57.82	60.03	57.99	58.06	51.04	49.69	50.52	47.65	49.05	51.96
84	48.12	51.02	47.69	48.03	39.57	37.00	38.11	35.30	38.78	42.10
85	39.36	40.99	38.54	36.83	26.99	26.08	27.35	24.17	28.65	32.09
86	30.11	30.73	29.43	25.52	15.96	15.16	16.58	14.02	18.52	21.45
87	21.33	20.46	17.15	14.22	10.61	4.32	5.95	9.34	8.42	10.69
88	7.69	10.19	11.44	2.93	5.37	0.59	1.20	4.78	1.59	5.43
89	3.86	0.17	5.75	0.02	0.14	0.03	0.15	0.22	0.15	0.17
90	0.03	0.00	0.06	0.00	0.00	0.00	0.10	0.10	0.10	0.11
91	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.12	0.11	0.12
92	0.01	0.01	0.01	0.01	0.01	0.01	0.12	0.13	0.13	0.13
93	0.01	0.01	0.02	0.01	0.02	0.01	0.14	0.15	0.15	0.15
94	0.02	0.02	0.02	0.02	0.02	0.02	0.16	0.17	0.17	0.17
95	0.03	0.03	0.03	0.03	0.03	0.03	0.19	0.20	0.19	0.20
96	0.04	0.04	0.04	0.04	0.04	0.04	0.22	0.23	0.23	0.24
97	0.05	0.05	0.05	0.05	0.06	0.05	0.26	0.28	0.27	0.28
98	0.06	0.06	0.07	0.07	0.07	0.07	0.31	0.32	0.32	0.33
99	0.08	0.08	0.08	0.08	0.09	0.08	0.36	0.38	0.37	0.38
100	0.10	0.10	0.10	0.10	0.11	0.10	0.42	0.44	0.43	0.43
101	0.12	0.12	0.12	0.12	0.13	0.12	0.48	0.50	0.49	0.50
102	0.14	0.14	0.15	0.15	0.15	0.15	0.55	0.57	0.56	0.57
103	0.16	0.16	0.17	0.17	0.18	0.17	0.63	0.66	0.64	0.65
104	0.19	0.19	0.20	0.20	0.20	0.20	0.72	0.74	0.72	0.73
105	0.22	0.22	0.23	0.23	0.23	0.22	0.80	0.82	0.80	0.81
106	0.25	0.25	0.26	0.26	0.26	0.26	0.88	0.89	0.88	0.88
107	0.28	0.29	0.30	0.30	0.30	0.29	0.95	0.96	0.95	0.95
108	0.33	0.33	0.34	0.34	0.34	0.33	1.02	1.03	1.02	1.02
109	0.37	0.38	0.39	0.39	0.39	0.37	1.09	1.10	1.09	1.10

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**CANDELA TABULATION - (Cont.)**

110	0.43	0.43	0.44	0.44	0.44	0.42	1.15	1.17	1.16	1.18
111	0.48	0.48	0.50	0.49	0.49	0.47	1.22	1.24	1.24	1.26
112	0.54	0.54	0.55	0.55	0.54	0.52	1.28	1.30	1.31	1.34
113	0.61	0.61	0.62	0.61	0.60	0.58	1.35	1.38	1.39	1.42
114	0.68	0.68	0.69	0.68	0.66	0.64	1.42	1.46	1.47	1.51
115	0.75	0.75	0.76	0.75	0.73	0.71	1.50	1.54	1.55	1.60
116	0.82	0.83	0.84	0.82	0.80	0.78	1.58	1.62	1.64	1.69
117	0.90	0.91	0.92	0.90	0.87	0.85	1.66	1.74	1.76	1.80
118	0.98	0.99	1.00	0.98	0.96	0.93	1.84	1.87	1.88	1.92
119	1.06	1.08	1.08	1.06	1.04	1.01	1.95	1.98	2.00	2.04
120	1.15	1.17	1.17	1.14	1.13	1.09	2.05	2.10	2.11	2.16
121	1.24	1.26	1.26	1.23	1.22	1.17	2.15	2.21	2.22	2.28
122	1.33	1.34	1.34	1.31	1.31	1.26	2.26	2.32	2.33	2.41
123	1.42	1.43	1.43	1.40	1.40	1.34	2.37	2.45	2.44	2.54
124	1.51	1.52	1.52	1.49	1.50	1.43	2.49	2.58	2.57	2.68
125	1.60	1.61	1.60	1.58	1.59	1.52	2.62	2.71	2.71	2.82
126	1.69	1.70	1.69	1.66	1.68	1.61	2.76	2.84	2.85	2.97
127	1.79	1.80	1.79	1.75	1.78	1.71	2.90	2.98	3.01	3.12
128	1.88	1.89	1.88	1.84	1.88	1.82	3.04	3.15	3.18	3.28
129	1.98	1.99	1.99	1.94	1.98	1.94	3.19	3.32	3.35	3.44
130	2.09	2.09	2.10	2.03	2.09	2.06	3.35	3.48	3.53	3.62
131	2.20	2.21	2.20	2.13	2.19	2.18	3.52	3.64	3.71	3.80
132	2.32	2.32	2.30	2.24	2.29	2.30	3.67	3.80	3.88	3.97
133	2.44	2.45	2.41	2.35	2.40	2.43	3.80	3.95	4.04	4.15
134	2.55	2.56	2.52	2.48	2.50	2.56	3.93	4.10	4.19	4.31
135	2.65	2.67	2.62	2.60	2.60	2.68	4.06	4.23	4.33	4.47
136	2.75	2.76	2.72	2.73	2.70	2.80	4.19	4.36	4.46	4.61
137	2.86	2.87	2.82	2.86	2.81	2.93	4.32	4.50	4.60	4.76
138	2.98	2.97	2.94	3.00	2.93	3.05	4.44	4.64	4.74	4.92
139	3.10	3.09	3.06	3.13	3.04	3.18	4.59	4.78	4.87	5.07
140	3.22	3.20	3.18	3.23	3.16	3.30	4.72	4.90	4.98	5.20
141	3.36	3.32	3.32	3.34	3.28	3.42	4.84	5.03	5.12	5.34
142	3.48	3.45	3.46	3.45	3.41	3.53	4.98	5.19	5.28	5.47
143	3.60	3.59	3.62	3.56	3.54	3.65	5.13	5.35	5.43	5.61
144	3.71	3.73	3.74	3.67	3.67	3.77	5.27	5.53	5.59	5.75
145	3.83	3.86	3.85	3.79	3.78	3.89	5.47	5.71	5.73	5.90
146	3.94	3.98	3.94	3.92	3.89	4.00	5.64	5.88	5.88	6.07
147	4.02	4.07	4.01	4.04	4.01	4.11	5.81	6.02	6.01	6.23
148	4.08	4.15	4.08	4.15	4.11	4.21	5.98	6.15	6.15	6.40
149	4.12	4.20	4.16	4.26	4.22	4.31	6.12	6.28	6.28	6.57
150	4.16	4.26	4.26	4.37	4.35	4.40	6.26	6.40	6.45	6.72
151	4.22	4.34	4.37	4.49	4.49	4.49	6.40	6.52	6.62	6.85
152	4.29	4.44	4.48	4.59	4.66	4.57	6.55	6.64	6.81	6.97
153	4.36	4.53	4.58	4.69	4.81	4.65	6.67	6.75	7.01	7.09
154	4.40	4.61	4.67	4.77	4.94	4.73	6.78	6.87	7.19	7.21
155	4.42	4.69	4.77	4.84	5.06	4.85	6.92	7.03	7.36	7.33
156	4.43	4.75	4.84	4.93	5.15	4.98	7.06	7.21	7.49	7.44
157	4.46	4.82	4.92	5.03	5.22	5.11	7.24	7.38	7.59	7.57
158	4.48	4.90	4.99	5.14	5.27	5.22	7.41	7.53	7.69	7.70
159	4.52	4.97	5.05	5.24	5.31	5.27	7.58	7.63	7.77	7.82
160	4.57	5.02	5.13	5.33	5.33	5.30	7.68	7.70	7.83	7.93
161	4.59	5.06	5.19	5.39	5.36	5.33	7.72	7.73	7.86	7.99
162	4.64	5.11	5.25	5.43	5.37	5.35	7.72	7.73	7.86	8.02
163	4.75	5.18	5.34	5.50	5.40	5.40	7.71	7.73	7.86	8.03
164	4.90	5.27	5.44	5.56	5.45	5.47	7.70	7.75	7.88	8.07
165	5.08	5.38	5.56	5.64	5.55	5.56	7.73	7.81	7.92	8.10

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

166	5.25	5.51	5.69	5.75	5.67	5.68	7.71	7.85	7.98	8.13
167	5.36	5.63	5.78	5.81	5.76	5.79	7.71	7.87	8.00	8.12
168	5.44	5.71	5.85	5.84	5.83	5.86	7.71	7.85	7.99	8.06
169	5.54	5.71	5.87	5.86	5.86	5.91	7.68	7.84	7.95	7.96
170	5.59	5.62	5.82	5.84	5.83	5.88	7.66	7.76	7.86	7.91
171	5.61	5.52	5.78	5.81	5.79	5.86	7.67	7.76	7.85	7.87
172	5.65	5.60	5.85	5.85	5.85	5.91	7.69	7.76	7.84	7.82
173	5.74	5.75	5.98	5.96	5.96	6.04	7.64	7.72	7.80	7.73
174	5.91	5.95	6.16	6.21	6.19	6.30	7.62	7.72	7.77	7.69
175	6.09	6.19	6.41	6.45	6.47	6.58	7.61	7.69	7.74	7.65
176	6.23	6.33	6.57	6.55	6.64	6.75	7.53	7.63	7.67	7.58
177	6.38	6.42	6.66	6.64	6.73	6.85	7.45	7.55	7.60	7.52
178	6.49	6.44	6.67	6.69	6.73	6.87	7.31	7.41	7.45	7.39
179	6.67	6.50	6.63	6.72	6.73	6.90	7.24	7.36	7.38	7.33
180	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84

**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	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75	8082.75
1	8075.80	8073.32	8071.50	8069.55	8071.05	8071.45	8070.65	8076.36	8080.68	8080.09
2	8069.41	8066.82	8065.77	8063.67	8062.58	8066.22	8064.53	8071.55	8079.66	8083.79
3	8065.34	8063.97	8056.78	8056.54	8055.64	8057.89	8060.40	8070.47	8085.33	8090.69
4	8065.67	8057.54	8054.06	8049.20	8052.20	8054.64	8061.40	8073.48	8091.13	8097.33
5	8066.35	8051.66	8053.55	8047.39	8047.44	8053.62	8059.78	8074.92	8092.94	8103.42
6	8065.68	8053.25	8046.83	8039.69	8047.74	8052.91	8062.17	8078.03	8102.23	8113.82
7	8068.79	8054.27	8049.17	8040.10	8045.01	8051.86	8064.53	8084.12	8108.99	8122.90
8	8070.55	8054.30	8046.45	8036.71	8044.99	8053.89	8062.54	8088.73	8115.80	8132.94
9	8073.62	8053.96	8045.92	8039.04	8043.62	8056.02	8067.79	8095.92	8124.42	8144.31
10	8079.52	8058.39	8050.95	8037.02	8041.64	8058.39	8072.53	8101.58	8132.39	8158.04
11	8084.08	8061.12	8050.63	8037.35	8045.40	8061.53	8077.11	8110.75	8146.27	8169.24
12	8088.89	8065.62	8051.52	8042.18	8048.14	8064.94	8082.94	8117.53	8157.67	8185.13
13	8096.96	8071.53	8059.61	8046.23	8051.68	8069.49	8087.33	8123.15	8168.90	8198.46
14	8107.75	8078.60	8063.21	8051.43	8058.33	8074.90	8097.24	8136.69	8183.82	8215.03
15	8116.01	8082.85	8070.90	8058.37	8065.59	8086.27	8106.77	8147.30	8197.38	8232.51
16	8122.42	8096.01	8080.31	8065.15	8073.61	8093.40	8118.62	8159.21	8210.06	8249.35
17	8133.52	8107.49	8085.30	8073.45	8081.42	8104.52	8128.74	8172.45	8227.70	8267.91
18	8149.35	8120.10	8102.91	8084.66	8092.48	8117.79	8142.92	8188.22	8246.31	8286.69
19	8163.02	8128.65	8115.25	8093.90	8105.94	8130.45	8160.43	8204.35	8262.83	8304.18
20	8175.36	8143.24	8124.57	8108.55	8118.01	8144.46	8171.82	8220.15	8278.73	8321.22
21	8192.27	8158.89	8138.31	8123.94	8135.46	8155.80	8191.95	8239.67	8297.68	8342.61
22	8207.60	8172.61	8151.93	8134.87	8148.13	8173.56	8207.03	8255.94	8314.32	8360.18
23	8224.79	8189.53	8165.28	8150.21	8163.84	8188.33	8223.40	8272.71	8332.41	8377.81
24	8239.34	8205.98	8183.95	8171.12	8181.19	8203.63	8239.20	8291.96	8352.66	8395.93
25	8255.46	8221.18	8196.69	8183.03	8198.43	8220.81	8255.92	8306.69	8370.15	8411.74
26	8268.75	8234.22	8214.68	8200.28	8215.27	8236.26	8272.21	8324.60	8381.48	8421.27
27	8281.32	8247.68	8224.96	8214.67	8228.08	8251.25	8286.67	8337.22	8392.41	8434.42
28	8294.29	8255.98	8234.82	8224.33	8237.39	8263.64	8295.78	8344.49	8397.72	8441.48
29	8297.46	8262.28	8246.79	8239.24	8247.66	8273.92	8306.57	8357.41	8401.18	8440.47
30	8301.50	8269.75	8253.32	8242.99	8256.83	8281.11	8310.33	8357.40	8404.24	8441.47
31	8293.84	8269.88	8252.29	8245.71	8258.47	8283.01	8312.30	8358.07	8395.14	8430.19
32	8285.99	8260.40	8252.60	8242.67	8255.65	8276.95	8308.55	8344.37	8380.18	8413.30
33	8268.30	8244.74	8239.73	8232.49	8248.01	8266.10	8295.14	8327.29	8357.80	8386.83
34	8240.11	8219.93	8212.50	8207.95	8224.85	8246.04	8271.83	8299.56	8324.39	8354.20
35	8196.59	8181.59	8181.78	8175.95	8196.01	8213.22	8239.33	8265.21	8275.10	8305.13
36	8140.00	8129.06	8137.26	8131.97	8155.25	8168.88	8189.53	8213.94	8214.56	8244.07

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

37	8069.89	8061.91	8076.34	8071.97	8100.29	8113.08	8131.09	8146.34	8136.58	8167.74
38	7975.09	7973.92	7996.68	7998.25	8022.42	8033.12	8056.38	8063.83	8043.19	8067.53
39	7858.22	7864.79	7891.93	7895.39	7923.10	7931.48	7954.54	7958.45	7928.48	7951.37
40	7712.94	7730.08	7764.53	7771.36	7802.20	7809.68	7831.19	7831.17	7786.23	7806.42
41	7543.68	7566.11	7608.05	7621.62	7650.35	7658.99	7675.75	7674.05	7620.57	7642.51
42	7338.14	7368.32	7417.40	7430.97	7472.58	7476.12	7493.98	7486.91	7412.90	7442.03
43	7098.27	7129.80	7188.97	7209.56	7256.52	7260.20	7279.38	7262.84	7176.13	7211.88
44	6813.43	6853.36	6916.36	6949.60	7004.82	7012.53	7019.61	7008.43	6905.63	6941.08
45	6481.48	6527.94	6600.25	6637.35	6705.96	6707.86	6721.84	6711.80	6593.68	6634.11
46	6114.16	6155.33	6238.07	6291.57	6368.95	6371.49	6384.20	6372.71	6240.59	6293.89
47	5698.61	5742.72	5829.89	5890.29	5976.88	5983.55	5999.49	5993.15	5853.14	5915.49
48	5256.27	5299.53	5392.21	5461.34	5552.34	5560.53	5579.84	5574.92	5425.37	5507.83
49	4792.71	4840.19	4940.69	5008.20	5100.12	5107.56	5128.74	5130.97	4977.00	5066.06
50	4325.58	4371.02	4469.35	4537.74	4621.74	4639.83	4662.69	4662.11	4522.11	4622.10
51	3860.01	3916.23	4011.80	4068.64	4151.32	4172.51	4196.81	4203.50	4066.90	4170.39
52	3411.19	3465.28	3559.86	3613.24	3692.43	3715.53	3747.76	3749.27	3620.03	3729.01
53	2977.69	3039.16	3130.85	3178.11	3244.05	3276.11	3303.82	3313.78	3179.97	3289.96
54	2564.80	2618.32	2703.64	2748.19	2813.98	2838.56	2871.80	2872.32	2750.21	2866.92
55	2186.03	2217.98	2313.39	2333.07	2417.58	2413.15	2451.62	2454.71	2336.73	2453.37
56	1807.25	1818.11	1923.14	1932.99	2021.19	2006.77	2061.59	2050.42	1931.01	2057.36
57	1429.87	1453.15	1534.27	1552.59	1625.42	1619.50	1671.96	1659.31	1544.52	1661.43
58	1101.53	1126.10	1194.31	1214.54	1274.92	1275.32	1319.60	1303.39	1194.91	1294.55
59	826.01	897.32	899.92	911.39	964.50	974.31	1013.37	994.38	888.17	976.21
60	604.74	670.40	655.40	690.12	710.02	772.92	749.86	789.15	679.53	722.06
61	444.05	443.48	473.77	471.32	510.51	572.83	537.96	587.36	472.45	525.47
62	339.54	334.16	356.56	350.35	373.85	372.74	391.84	385.57	360.08	395.80
63	281.47	275.59	288.78	283.80	297.90	295.15	309.12	305.53	297.98	319.70
64	250.31	245.42	253.52	250.69	260.63	259.62	268.77	267.76	265.50	278.48
65	233.45	226.30	235.80	230.75	238.56	237.99	245.60	245.03	242.55	252.70
66	216.58	211.09	218.09	214.29	221.61	221.02	229.84	226.93	224.84	233.48
67	199.77	197.67	200.41	200.24	204.78	206.57	214.08	212.27	209.93	218.49
68	187.87	185.87	188.10	188.89	192.61	194.48	198.44	199.57	197.00	203.63
69	177.81	175.90	177.75	178.48	181.62	184.00	187.43	188.39	186.26	192.82
70	169.00	167.15	168.79	169.66	172.54	174.65	177.55	178.86	176.37	182.54
71	160.88	158.83	160.53	161.72	164.31	166.22	168.65	169.87	167.22	172.69
72	153.16	150.69	152.11	153.74	156.57	157.99	159.73	161.26	158.80	163.70
73	144.94	141.95	143.33	145.07	148.96	149.07	150.37	152.20	150.20	154.18
74	136.16	133.17	134.51	136.65	140.11	139.34	141.13	143.21	141.44	145.07
75	126.48	124.47	125.47	127.66	130.70	130.01	131.40	133.70	132.07	135.77
76	116.34	115.73	116.11	118.40	120.41	120.56	121.48	124.07	122.51	126.17
77	106.90	107.37	106.98	109.35	110.18	111.18	111.77	115.04	112.69	117.10
78	97.51	98.31	97.90	99.99	100.52	102.04	102.06	105.13	102.71	107.62
79	88.39	89.37	88.99	90.98	91.31	92.97	92.94	95.09	93.45	98.05
80	79.69	80.43	80.36	81.97	82.61	83.90	83.55	85.51	83.06	88.32
81	71.08	71.50	71.84	72.96	73.76	74.83	74.43	75.94	72.64	78.38
82	62.96	62.82	63.73	64.41	65.59	66.15	65.63	66.37	63.39	68.77
83	54.16	54.34	54.92	56.13	57.19	57.21	56.83	57.04	53.47	59.45
84	44.41	45.47	45.75	47.44	48.03	48.17	46.80	45.97	41.96	49.38
85	35.58	36.23	37.18	38.37	38.96	38.49	35.26	34.49	30.88	37.57
86	25.82	27.64	27.18	29.78	28.80	26.88	24.80	23.06	19.90	26.66
87	16.05	18.73	17.19	20.34	18.64	14.68	14.34	10.30	8.04	15.75
88	6.31	5.78	7.22	7.32	8.57	9.76	3.89	5.27	3.98	5.01
89	0.38	2.86	0.18	3.70	0.80	4.97	0.16	0.33	0.12	0.66
90	0.10	0.20	0.10	0.13	0.10	0.18	0.10	0.10	0.01	0.03
91	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.01	0.00
92	0.13	0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.01	0.01

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

<b>93</b>	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.02	0.01
<b>94</b>	0.17	0.17	0.16	0.16	0.16	0.15	0.15	0.15	0.02	0.02
<b>95</b>	0.19	0.19	0.19	0.19	0.18	0.18	0.17	0.17	0.03	0.02
<b>96</b>	0.23	0.23	0.22	0.22	0.21	0.21	0.20	0.20	0.04	0.03
<b>97</b>	0.27	0.27	0.26	0.26	0.25	0.25	0.24	0.24	0.05	0.04
<b>98</b>	0.31	0.31	0.30	0.30	0.29	0.28	0.28	0.28	0.06	0.05
<b>99</b>	0.36	0.36	0.35	0.35	0.33	0.33	0.32	0.32	0.08	0.07
<b>100</b>	0.42	0.42	0.40	0.40	0.39	0.38	0.37	0.37	0.09	0.08
<b>101</b>	0.48	0.48	0.47	0.46	0.45	0.44	0.43	0.43	0.11	0.10
<b>102</b>	0.55	0.55	0.53	0.53	0.51	0.51	0.49	0.49	0.13	0.12
<b>103</b>	0.63	0.63	0.61	0.60	0.58	0.58	0.56	0.56	0.16	0.14
<b>104</b>	0.71	0.71	0.69	0.68	0.66	0.65	0.64	0.64	0.18	0.17
<b>105</b>	0.79	0.78	0.76	0.75	0.74	0.73	0.71	0.71	0.20	0.19
<b>106</b>	0.86	0.85	0.83	0.82	0.80	0.79	0.78	0.77	0.23	0.22
<b>107</b>	0.93	0.92	0.90	0.89	0.87	0.86	0.84	0.84	0.26	0.25
<b>108</b>	1.01	1.00	0.97	0.96	0.94	0.93	0.90	0.90	0.30	0.28
<b>109</b>	1.09	1.08	1.05	1.04	1.01	1.00	0.97	0.96	0.34	0.32
<b>110</b>	1.16	1.15	1.13	1.12	1.09	1.08	1.04	1.03	0.38	0.36
<b>111</b>	1.25	1.24	1.22	1.20	1.17	1.15	1.11	1.09	0.43	0.40
<b>112</b>	1.33	1.33	1.30	1.29	1.26	1.23	1.19	1.16	0.48	0.45
<b>113</b>	1.42	1.42	1.40	1.38	1.35	1.32	1.26	1.24	0.53	0.49
<b>114</b>	1.51	1.52	1.49	1.47	1.44	1.40	1.34	1.31	0.59	0.53
<b>115</b>	1.60	1.61	1.59	1.57	1.53	1.49	1.43	1.39	0.66	0.58
<b>116</b>	1.70	1.71	1.70	1.68	1.63	1.58	1.52	1.48	0.73	0.65
<b>117</b>	1.80	1.82	1.80	1.78	1.74	1.68	1.63	1.60	0.80	0.73
<b>118</b>	1.91	1.93	1.91	1.89	1.84	1.80	1.73	1.72	0.87	0.80
<b>119</b>	2.03	2.04	2.03	2.01	1.96	1.92	1.85	1.84	0.96	0.88
<b>120</b>	2.15	2.15	2.14	2.12	2.08	2.03	1.97	1.96	1.04	0.97
<b>121</b>	2.28	2.27	2.27	2.24	2.22	2.15	2.09	2.07	1.13	1.05
<b>122</b>	2.41	2.41	2.39	2.37	2.34	2.26	2.21	2.19	1.22	1.14
<b>123</b>	2.57	2.57	2.53	2.53	2.47	2.38	2.33	2.31	1.30	1.23
<b>124</b>	2.72	2.74	2.68	2.68	2.60	2.52	2.45	2.43	1.40	1.32
<b>125</b>	2.88	2.91	2.88	2.84	2.74	2.66	2.58	2.57	1.49	1.42
<b>126</b>	3.03	3.08	3.09	3.01	2.90	2.81	2.72	2.70	1.59	1.52
<b>127</b>	3.20	3.26	3.27	3.18	3.06	2.96	2.87	2.84	1.68	1.61
<b>128</b>	3.37	3.43	3.44	3.35	3.23	3.12	3.03	2.98	1.78	1.71
<b>129</b>	3.55	3.62	3.62	3.52	3.40	3.28	3.18	3.14	1.89	1.81
<b>130</b>	3.73	3.79	3.79	3.69	3.56	3.44	3.34	3.30	2.01	1.93
<b>131</b>	3.90	3.97	3.95	3.85	3.72	3.59	3.51	3.48	2.14	2.05
<b>132</b>	4.07	4.14	4.09	4.00	3.87	3.73	3.68	3.64	2.27	2.19
<b>133</b>	4.23	4.31	4.26	4.15	4.00	3.88	3.83	3.78	2.42	2.33
<b>134</b>	4.40	4.46	4.40	4.29	4.13	4.03	3.96	3.91	2.55	2.47
<b>135</b>	4.55	4.59	4.53	4.43	4.26	4.16	4.09	4.04	2.68	2.61
<b>136</b>	4.69	4.71	4.64	4.56	4.40	4.30	4.20	4.17	2.80	2.74
<b>137</b>	4.84	4.83	4.75	4.68	4.54	4.47	4.31	4.31	2.92	2.88
<b>138</b>	4.98	4.98	4.87	4.79	4.69	4.61	4.46	4.45	3.05	3.02
<b>139</b>	5.11	5.10	5.01	4.91	4.84	4.77	4.62	4.62	3.17	3.15
<b>140</b>	5.23	5.23	5.14	5.02	4.96	4.89	4.75	4.77	3.29	3.29
<b>141</b>	5.37	5.37	5.28	5.15	5.10	5.04	4.89	4.91	3.40	3.42
<b>142</b>	5.52	5.50	5.43	5.26	5.27	5.18	5.04	5.05	3.53	3.56
<b>143</b>	5.68	5.64	5.58	5.37	5.43	5.31	5.19	5.21	3.65	3.71
<b>144</b>	5.84	5.79	5.74	5.48	5.56	5.45	5.33	5.37	3.78	3.85
<b>145</b>	5.99	5.95	5.89	5.63	5.69	5.60	5.48	5.56	3.90	3.97
<b>146</b>	6.15	6.10	6.04	5.83	5.83	5.74	5.63	5.73	4.00	4.09
<b>147</b>	6.29	6.26	6.20	6.04	5.96	5.91	5.79	5.85	4.11	4.20
<b>148</b>	6.42	6.40	6.35	6.23	6.08	6.07	5.92	5.98	4.21	4.30



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED135DHV40.IES**

**CANDELA TABULATION - (Cont.)**

149	6.55	6.54	6.48	6.38	6.19	6.24	6.12	6.13	4.31	4.40
150	6.68	6.66	6.54	6.50	6.30	6.41	6.33	6.27	4.43	4.52
151	6.81	6.77	6.59	6.60	6.41	6.56	6.52	6.42	4.56	4.64
152	6.92	6.88	6.71	6.69	6.54	6.67	6.71	6.56	4.68	4.76
153	7.03	7.01	6.81	6.81	6.72	6.77	6.89	6.67	4.77	4.87
154	7.16	7.12	6.89	6.93	6.88	6.87	7.07	6.78	4.85	4.97
155	7.27	7.20	6.95	7.04	7.00	6.99	7.24	6.90	4.93	5.07
156	7.38	7.27	7.00	7.11	7.11	7.07	7.39	7.05	5.02	5.16
157	7.47	7.36	7.05	7.15	7.18	7.15	7.51	7.21	5.13	5.25
158	7.56	7.46	7.12	7.20	7.23	7.22	7.59	7.36	5.22	5.34
159	7.65	7.56	7.19	7.28	7.29	7.32	7.64	7.50	5.30	5.42
160	7.72	7.63	7.26	7.34	7.35	7.43	7.67	7.59	5.34	5.45
161	7.76	7.66	7.30	7.35	7.39	7.52	7.68	7.63	5.36	5.47
162	7.80	7.66	7.32	7.33	7.40	7.53	7.66	7.63	5.37	5.49
163	7.83	7.67	7.37	7.31	7.40	7.52	7.65	7.63	5.41	5.55
164	7.88	7.68	7.45	7.34	7.40	7.51	7.64	7.64	5.49	5.64
165	7.94	7.73	7.50	7.43	7.41	7.51	7.66	7.66	5.57	5.74
166	7.99	7.76	7.54	7.48	7.42	7.55	7.67	7.65	5.69	5.85
167	7.98	7.73	7.53	7.45	7.39	7.49	7.65	7.62	5.80	5.96
168	7.95	7.65	7.52	7.40	7.29	7.44	7.63	7.58	5.88	6.03
169	7.87	7.54	7.44	7.38	7.20	7.42	7.56	7.50	5.95	6.09
170	7.80	7.45	7.37	7.35	7.05	7.32	7.49	7.42	5.94	6.09
171	7.76	7.40	7.31	7.37	7.01	7.33	7.48	7.44	5.94	6.09
172	7.74	7.40	7.18	7.37	7.05	7.35	7.48	7.48	6.02	6.16
173	7.68	7.35	7.05	7.33	7.01	7.31	7.43	7.45	6.19	6.30
174	7.64	7.31	6.97	7.25	6.97	7.29	7.39	7.45	6.49	6.56
175	7.60	7.24	6.98	7.14	6.94	7.26	7.34	7.44	6.78	6.85
176	7.55	7.19	7.00	7.03	6.89	7.16	7.21	7.33	6.93	7.06
177	7.44	7.12	6.98	6.90	6.84	7.07	7.08	7.22	7.07	7.24
178	7.26	7.02	6.87	6.71	6.75	6.92	6.90	7.05	7.10	7.28
179	7.18	6.98	6.87	6.63	6.72	6.83	6.84	6.99	7.14	7.29
180	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84

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

	<u>300</u>	<u>315</u>	<u>330</u>	<u>345</u>	<u>360</u>
0	8082.75	8082.75	8082.75	8082.75	8082.75
1	8087.15	8092.25	8091.45	8091.59	8096.69
2	8088.56	8098.49	8101.24	8106.28	8108.00
3	8098.66	8109.29	8118.71	8123.46	8128.72
4	8107.34	8122.72	8130.66	8138.89	8147.78
5	8120.45	8135.49	8149.63	8157.80	8165.97
6	8130.84	8151.23	8163.78	8180.25	8187.21
7	8144.16	8167.93	8184.38	8199.66	8207.56
8	8156.32	8185.50	8203.85	8219.83	8229.98
9	8173.06	8204.29	8223.58	8240.39	8252.35
10	8189.65	8223.76	8241.50	8263.45	8274.13
11	8203.84	8239.16	8260.23	8286.54	8298.97
12	8217.43	8258.38	8283.05	8305.79	8317.73
13	8238.15	8278.73	8303.87	8328.93	8341.26
14	8257.02	8299.51	8327.27	8352.37	8366.54
15	8273.84	8321.29	8348.68	8376.53	8390.54
16	8295.46	8342.80	8366.08	8397.54	8413.43
17	8314.47	8364.96	8394.04	8421.01	8440.58
18	8332.97	8385.03	8415.72	8444.79	8461.54
19	8351.37	8405.73	8437.91	8467.21	8482.38

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED135DHV40.IES**

**CANDELA TABULATION - (Cont.)**

20	8370.65	8426.77	8456.86	8488.72	8505.77
21	8393.98	8445.62	8478.29	8509.70	8524.65
22	8409.40	8469.31	8496.81	8530.45	8545.93
23	8431.49	8484.04	8511.45	8544.89	8559.58
24	8443.35	8500.07	8530.16	8559.66	8575.70
25	8455.75	8514.31	8542.69	8571.35	8586.80
26	8466.80	8525.61	8549.53	8583.77	8590.28
27	8474.41	8531.96	8554.77	8588.81	8596.12
28	8482.69	8532.99	8554.91	8582.24	8588.10
29	8479.48	8531.84	8552.89	8572.99	8575.06
30	8471.22	8523.55	8538.18	8557.02	8562.41
31	8459.96	8507.15	8516.26	8536.87	8532.46
32	8436.69	8479.07	8484.18	8502.52	8496.51
33	8404.58	8445.53	8440.96	8457.57	8449.86
34	8367.27	8398.42	8391.50	8402.76	8388.15
35	8311.15	8338.83	8325.62	8336.39	8314.63
36	8236.85	8260.55	8244.64	8250.85	8227.15
37	8146.35	8165.01	8144.10	8147.75	8118.50
38	8041.03	8051.34	8029.60	8028.79	7995.55
39	7914.44	7924.24	7890.86	7885.76	7843.42
40	7762.14	7767.86	7730.38	7712.95	7666.60
41	7584.04	7587.12	7541.86	7517.01	7462.85
42	7376.87	7373.74	7323.78	7293.16	7224.55
43	7137.34	7132.54	7077.64	7036.49	6960.23
44	6856.65	6854.58	6793.71	6744.84	6660.11
45	6545.84	6545.14	6480.22	6417.25	6329.97
46	6192.13	6200.01	6126.87	6068.11	5964.56
47	5810.89	5820.05	5745.04	5681.34	5579.56
48	5395.96	5416.73	5331.37	5277.66	5169.00
49	4968.31	4987.86	4908.05	4853.68	4753.61
50	4531.73	4552.78	4472.95	4425.53	4322.71
51	4085.41	4110.93	4031.88	3988.87	3895.24
52	3654.29	3680.25	3594.82	3561.02	3470.36
53	3220.64	3248.08	3160.64	3138.85	3047.47
54	2791.09	2816.58	2733.23	2710.21	2620.33
55	2379.10	2415.54	2316.15	2312.10	2196.41
56	1963.77	2014.50	1918.12	1913.99	1801.42
57	1579.16	1613.47	1535.25	1516.40	1437.55
58	1225.20	1256.74	1186.24	1180.46	1122.73
59	925.61	947.94	886.79	898.16	913.31
60	745.86	703.62	689.31	677.12	705.88
61	566.68	521.41	493.45	511.77	498.45
62	387.51	399.54	388.90	399.88	399.85
63	318.01	325.54	323.42	331.20	331.84
64	279.08	282.41	281.70	285.69	286.56
65	253.04	254.07	253.44	254.92	254.25
66	234.27	234.09	232.25	237.08	231.81
67	218.84	219.49	216.55	219.23	215.00
68	205.83	204.93	203.01	201.53	201.10
69	194.53	193.64	192.39	190.74	190.29
70	183.99	184.09	182.75	181.41	180.54
71	174.58	175.30	174.13	172.84	172.73
72	165.32	167.21	166.85	165.73	164.16
73	155.57	158.36	158.45	156.82	154.32
74	146.09	149.19	149.71	147.44	145.15
75	136.06	139.55	140.74	138.05	135.19

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED135DHV40.IES**

**CANDELA TABULATION - (Cont.)**

76	126.12	129.80	129.62	127.49	124.66
77	116.07	120.29	118.70	117.64	113.98
78	105.81	110.68	108.25	107.89	103.84
79	96.07	101.01	98.43	98.45	94.08
80	86.80	91.62	89.27	89.33	84.98
81	77.54	82.27	80.12	80.12	75.89
82	68.29	73.02	70.97	71.07	66.79
83	59.44	63.91	62.28	62.41	57.82
84	49.22	54.95	52.80	53.49	48.12
85	38.74	44.97	43.12	43.63	39.36
86	27.16	35.06	33.89	34.44	30.11
87	16.93	24.44	24.67	23.33	21.33
88	7.43	13.82	13.69	12.23	7.69
89	3.72	3.22	9.03	1.38	3.86
90	0.08	0.02	4.56	0.01	0.03
91	0.01	0.00	0.08	0.00	0.00
92	0.01	0.01	0.01	0.01	0.01
93	0.01	0.01	0.01	0.01	0.01
94	0.02	0.02	0.02	0.02	0.02
95	0.03	0.02	0.03	0.03	0.03
96	0.03	0.03	0.04	0.03	0.04
97	0.05	0.04	0.05	0.05	0.05
98	0.06	0.06	0.06	0.06	0.06
99	0.07	0.07	0.08	0.08	0.08
100	0.09	0.09	0.09	0.09	0.10
101	0.10	0.10	0.11	0.11	0.12
102	0.13	0.12	0.13	0.13	0.14
103	0.15	0.14	0.16	0.16	0.16
104	0.17	0.17	0.18	0.18	0.19
105	0.19	0.19	0.21	0.21	0.22
106	0.22	0.22	0.24	0.24	0.25
107	0.25	0.25	0.27	0.28	0.28
108	0.29	0.29	0.31	0.32	0.33
109	0.33	0.33	0.36	0.36	0.37
110	0.37	0.37	0.40	0.41	0.43
111	0.42	0.42	0.45	0.47	0.48
112	0.47	0.47	0.51	0.53	0.54
113	0.52	0.53	0.55	0.59	0.61
114	0.58	0.59	0.61	0.65	0.68
115	0.64	0.65	0.67	0.72	0.75
116	0.71	0.73	0.74	0.79	0.82
117	0.78	0.80	0.83	0.87	0.90
118	0.86	0.88	0.92	0.95	0.98
119	0.94	0.96	1.01	1.03	1.06
120	1.03	1.05	1.11	1.11	1.15
121	1.12	1.13	1.20	1.18	1.24
122	1.21	1.22	1.30	1.26	1.33
123	1.29	1.31	1.39	1.33	1.42
124	1.38	1.40	1.49	1.40	1.51
125	1.47	1.49	1.60	1.48	1.60
126	1.57	1.58	1.70	1.57	1.69
127	1.68	1.67	1.81	1.68	1.79
128	1.79	1.76	1.92	1.80	1.88
129	1.91	1.85	2.03	1.93	1.98
130	2.03	1.95	2.14	2.07	2.09
131	2.14	2.04	2.25	2.21	2.20

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED135DHV40.IES**

**CANDELA TABULATION - (Cont.)**

<b>132</b>	2.25	2.14	2.35	2.35	2.32
<b>133</b>	2.36	2.23	2.45	2.48	2.44
<b>134</b>	2.46	2.33	2.53	2.61	2.55
<b>135</b>	2.57	2.42	2.61	2.71	2.65
<b>136</b>	2.69	2.55	2.71	2.82	2.75
<b>137</b>	2.81	2.71	2.83	2.93	2.86
<b>138</b>	2.92	2.89	2.97	3.07	2.98
<b>139</b>	3.04	3.04	3.11	3.20	3.10
<b>140</b>	3.17	3.14	3.25	3.32	3.22
<b>141</b>	3.31	3.24	3.39	3.44	3.36
<b>142</b>	3.45	3.33	3.52	3.56	3.48
<b>143</b>	3.58	3.43	3.66	3.66	3.60
<b>144</b>	3.71	3.55	3.77	3.76	3.71
<b>145</b>	3.86	3.69	3.85	3.86	3.83
<b>146</b>	3.99	3.82	3.92	3.96	3.94
<b>147</b>	4.11	3.95	3.97	4.05	4.02
<b>148</b>	4.23	4.07	4.02	4.15	4.08
<b>149</b>	4.35	4.18	4.07	4.24	4.12
<b>150</b>	4.49	4.27	4.11	4.31	4.16
<b>151</b>	4.64	4.36	4.19	4.38	4.22
<b>152</b>	4.79	4.45	4.28	4.45	4.29
<b>153</b>	4.92	4.52	4.39	4.54	4.36
<b>154</b>	5.02	4.59	4.49	4.62	4.40
<b>155</b>	5.12	4.66	4.58	4.69	4.42
<b>156</b>	5.21	4.73	4.64	4.74	4.43
<b>157</b>	5.28	4.81	4.68	4.76	4.46
<b>158</b>	5.32	4.90	4.73	4.77	4.48
<b>159</b>	5.34	5.00	4.78	4.79	4.52
<b>160</b>	5.36	5.10	4.84	4.80	4.57
<b>161</b>	5.38	5.18	4.92	4.83	4.59
<b>162</b>	5.40	5.26	5.00	4.88	4.64
<b>163</b>	5.49	5.35	5.08	4.98	4.75
<b>164</b>	5.58	5.47	5.18	5.13	4.90
<b>165</b>	5.69	5.60	5.32	5.28	5.08
<b>166</b>	5.81	5.74	5.48	5.43	5.25
<b>167</b>	5.91	5.89	5.59	5.55	5.36
<b>168</b>	6.03	5.98	5.65	5.59	5.44
<b>169</b>	6.11	6.07	5.65	5.63	5.54
<b>170</b>	6.12	6.10	5.63	5.65	5.59
<b>171</b>	6.11	6.10	5.65	5.68	5.61
<b>172</b>	6.17	6.18	5.76	5.76	5.65
<b>173</b>	6.31	6.31	5.90	5.88	5.74
<b>174</b>	6.57	6.56	6.18	6.10	5.91
<b>175</b>	6.83	6.82	6.46	6.33	6.09
<b>176</b>	7.00	6.97	6.63	6.53	6.23
<b>177</b>	7.14	7.10	6.76	6.69	6.38
<b>178</b>	7.21	7.17	6.86	6.78	6.49
<b>179</b>	7.28	7.24	6.96	6.86	6.67
<b>180</b>	6.84	6.84	6.84	6.84	6.84

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED135DHV40.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	3111.61	15.90	15.90
0-30	6994.73	35.80	35.80
0-40	12130.29	62.20	62.20
0-60	19036.92	97.60	97.60
0-80	19459.85	99.70	99.70
0-90	19499.8	99.90	99.90
10-90	18724.24	96.00	96.00
20-40	9018.68	46.20	46.20
20-50	13867.68	71.10	71.10
40-70	7191.84	36.90	36.90
60-80	422.93	2.20	2.20
70-80	137.73	0.70	0.70
80-90	39.95	0.20	0.20
90-110	0.66	0.00	0.00
90-120	1.79	0.00	0.00
90-130	3.72	0.00	0.00
90-150	9.36	0.00	0.00
90-180	14.60	0.10	0.10
110-180	13.94	0.10	0.10
0-180	19514.4	100.00	100.00

Total Luminaire Efficiency = 100.00%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	775.56
10-20	2336.05
20-30	3883.13
30-40	5135.56
40-50	4849.00
50-60	2057.64
60-70	285.20
70-80	137.73
80-90	39.95
90-100	0.15
100-110	0.52
110-120	1.13
120-130	1.93
130-140	2.67
140-150	2.98
150-160	2.73
160-170	1.86
170-180	0.65

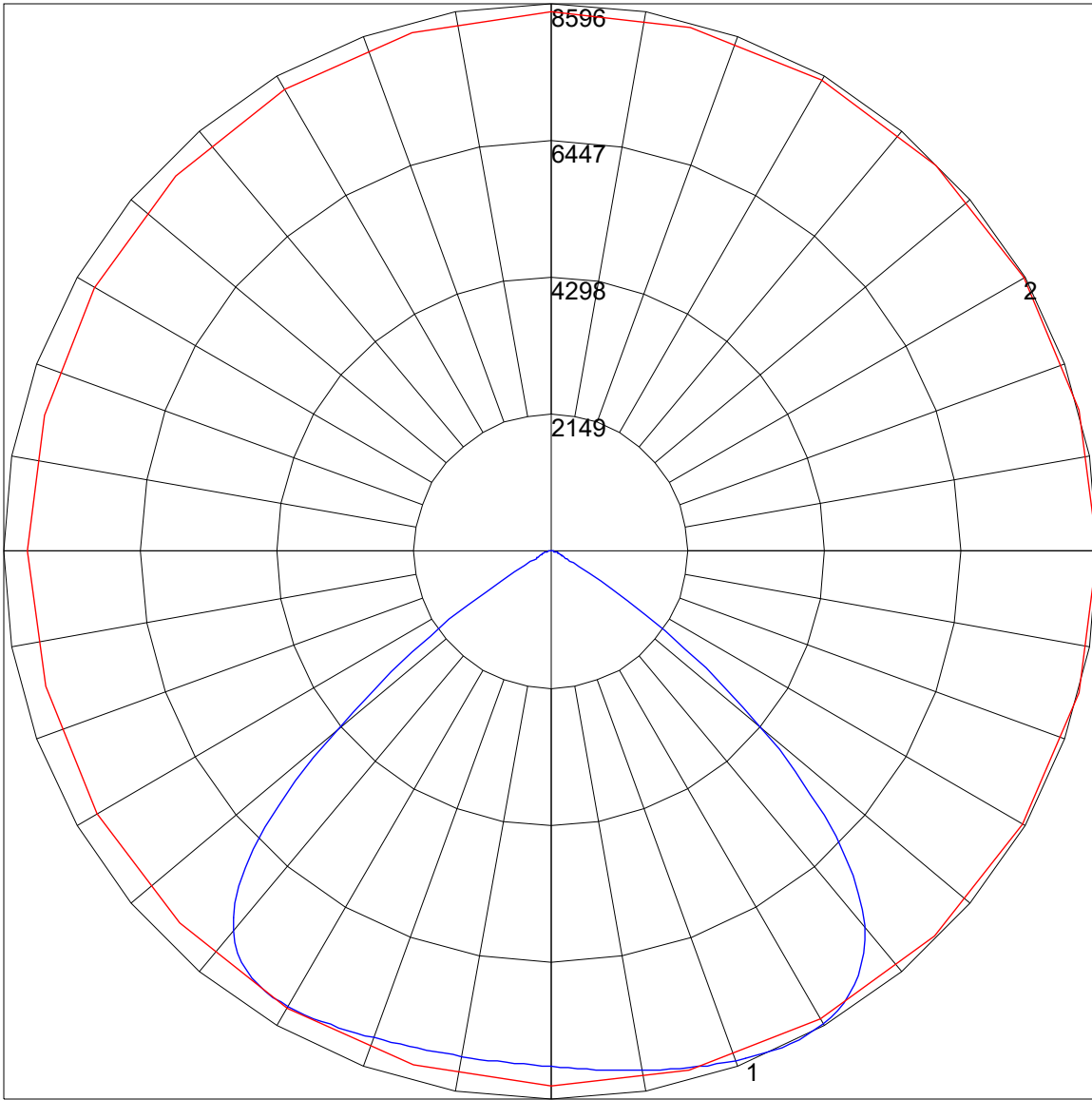
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HBRMSR-LED135DHV40.IES**

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

POLAR GRAPH



Maximum Candela = 8596.12 Located At Horizontal Angle = 0, Vertical Angle = 27  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (27) (Through Max. Cd.)