



IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBPA48-LED175DMVFR50.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] HBPA48-LED175DMVFR50
 [TESTDATE] 20-Feb-2018 11:56:21
 [TESTLAB] Radiant Vision Systems ProSource
 [ISSUEDATE] 2/20/2018 12:47:36 PM
 [MANUFAC] Mobern Lighting Co.
 [LUMINAIRE] Catalog Number: HBPA48-LED175DMVFR50
 [LAMP] LED Module
 [_TOTALLUMINAIRELUMENS] 23545.1
 [DRIVER TYPE] (3) PHILIPS ADVANCED 95W
 [BOARD/LAMP TYPE] (6) PHILIPS "œœ" BOARDS
 [COLOR TEMP] 5,357 CCT
 [LUMEN/WATT] 133 LM/WT
 [CRI] 85.8
 [_NUMBEROFRAYS]10000000
 [OTHER] Absolute Photometry measurement

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	23558
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	177
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	1.22 m
Luminous Width (90-270)	0.38 m
Luminous Height	0.10 m

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	16235	13736	13347
55	13026	10507	10061
65	9958	7550	7209
75	7624	5020	4620
85	4485	2322	2095

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CANDELA TABULATION

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
0	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75
3	9583.36	9577.15	9569.59	9559.98	9551.97	9543.20	9538.09	9535.37	9534.96	9537.77
6	9568.24	9559.92	9547.44	9526.70	9506.24	9489.81	9481.29	9479.11	9483.75	9495.70
9	9500.27	9502.08	9497.08	9473.02	9443.53	9422.76	9416.74	9423.91	9434.74	9444.24
12	9392.67	9410.74	9415.63	9397.19	9368.35	9337.76	9333.32	9344.12	9353.08	9354.06
15	9261.17	9267.95	9279.43	9255.37	9209.33	9183.17	9184.58	9203.05	9197.53	9202.51
18	9087.30	9089.12	9063.29	9058.06	9006.88	8979.28	8985.60	9007.61	9010.47	9016.92
21	8855.94	8851.15	8845.80	8849.85	8822.07	8782.51	8777.61	8792.01	8798.06	8824.53
24	8598.45	8607.85	8612.64	8575.53	8590.51	8581.33	8549.10	8536.04	8552.57	8601.73
27	8341.01	8374.26	8335.67	8280.47	8295.31	8332.03	8302.22	8255.16	8261.71	8317.86
30	8043.14	8082.72	8018.29	7966.25	7938.14	7979.03	7953.07	7954.06	7928.69	7966.31
33	7664.45	7683.98	7637.93	7643.59	7592.90	7598.29	7509.26	7551.00	7516.13	7550.94
36	7228.87	7211.60	7177.29	7263.21	7183.02	7202.73	7069.33	7091.48	7045.38	7088.92
39	6769.02	6742.96	6726.84	6724.31	6681.13	6747.23	6618.56	6633.07	6573.69	6597.32
42	6282.80	6247.94	6221.03	6210.72	6181.07	6197.88	6152.50	6104.65	6062.19	6077.34
45	5760.60	5699.16	5670.20	5681.96	5614.14	5594.06	5597.34	5553.22	5512.37	5529.01
48	5197.67	5132.92	5124.81	5131.34	5030.25	5002.99	5012.33	4998.33	4953.68	4963.85
51	4603.34	4599.89	4524.87	4573.51	4480.52	4451.33	4462.48	4415.29	4438.70	4397.70
54	4035.54	4042.20	4055.76	3977.12	3939.41	3920.74	3902.41	3876.42	3904.67	3851.48
57	3541.06	3534.85	3546.51	3475.43	3477.32	3418.77	3409.70	3365.79	3392.25	3344.34
60	3074.13	3090.06	3009.20	2962.61	3002.31	2946.43	2934.83	2902.42	2889.65	2882.91
63	2591.31	2641.12	2570.39	2507.56	2520.63	2505.39	2509.09	2483.54	2448.67	2467.13
66	2146.70	2160.41	2131.05	2145.35	2126.26	2123.55	2102.46	2092.96	2052.17	2082.06
69	1795.09	1765.14	1781.69	1767.31	1754.83	1746.92	1728.62	1740.39	1694.76	1716.03
72	1495.22	1461.82	1468.31	1448.28	1454.87	1405.76	1406.06	1414.25	1387.73	1383.88
75	1195.18	1172.62	1164.04	1177.07	1150.18	1152.46	1105.40	1096.79	1105.06	1099.19
78	900.00	882.83	897.19	907.68	872.40	859.31	859.57	847.18	849.56	843.92
81	663.72	648.49	704.18	699.59	681.89	666.42	649.81	639.54	633.65	631.37
84	427.67	428.52	435.12	447.89	430.37	412.18	413.14	401.19	410.84	416.83
87	198.13	224.93	201.36	203.52	229.62	219.42	203.81	195.61	201.34	184.54
90	40.29	44.32	39.61	44.15	55.38	51.57	59.48	38.46	50.25	43.66
93	4.56	4.90	6.68	5.80	10.21	7.56	9.57	9.24	7.63	8.41
96	0.69	1.13	1.34	0.96	2.09	1.93	0.53	0.22	0.76	0.46
99	0.08	0.91	1.00	2.30	1.16	1.17	1.30	0.53	0.09	0.02
102	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
114	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
117	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
159	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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CANDELA TABULATION - (Cont.)

162	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>	<u>190</u>
0	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75
3	9541.29	9546.80	9552.57	9558.01	9562.37	9563.79	9565.84	9566.60	9567.89	9569.83
6	9512.22	9529.34	9548.72	9562.81	9569.78	9571.41	9567.07	9558.87	9553.36	9549.02
9	9454.12	9466.92	9486.86	9509.19	9520.17	9519.20	9522.13	9512.51	9507.01	9490.01
12	9346.88	9341.61	9356.13	9384.24	9404.83	9394.31	9396.97	9405.52	9406.74	9379.00
15	9211.34	9215.60	9206.67	9232.34	9250.86	9252.15	9256.91	9245.58	9243.53	9224.83
18	9065.76	9070.22	9021.60	9038.55	9072.61	9092.22	9087.95	9082.28	9056.18	9080.28
21	8852.56	8844.65	8774.01	8810.68	8876.69	8887.35	8878.39	8867.85	8878.09	8906.33
24	8561.65	8534.92	8512.18	8609.22	8647.99	8615.56	8615.45	8615.18	8673.69	8675.83
27	8233.53	8213.43	8275.60	8377.55	8342.68	8307.55	8301.18	8351.45	8403.18	8374.51
30	7897.39	7905.77	7965.14	8025.67	7951.20	7941.23	7941.99	8046.72	8079.59	8028.30
33	7521.17	7524.75	7572.17	7638.84	7611.54	7602.39	7552.25	7660.20	7721.53	7677.95
36	7081.79	7085.09	7130.94	7184.47	7209.05	7254.65	7157.27	7185.94	7315.42	7258.65
39	6586.53	6626.48	6618.68	6647.98	6651.24	6705.14	6767.56	6666.90	6846.55	6734.63
42	6035.68	6093.87	6121.40	6109.98	6123.58	6124.63	6271.63	6130.49	6328.51	6182.06
45	5491.46	5533.67	5582.10	5590.66	5632.21	5575.42	5701.35	5627.32	5782.99	5692.96
48	4950.92	4952.43	5016.55	5028.61	5114.52	5074.32	5132.09	5134.79	5238.64	5205.88
51	4420.24	4362.75	4472.60	4477.51	4531.04	4562.20	4504.24	4632.66	4712.69	4687.94
54	3861.77	3867.38	3904.42	3993.07	3947.03	3954.97	4010.52	4080.63	4176.42	4127.22
57	3368.23	3391.40	3390.57	3508.43	3453.20	3426.38	3497.05	3552.33	3609.45	3604.93
60	2909.38	2917.36	2916.49	2981.01	2942.15	2923.05	3010.66	3062.33	3071.67	3109.79
63	2488.87	2486.26	2510.38	2496.64	2446.97	2504.34	2613.11	2625.18	2620.61	2644.69
66	2088.04	2088.21	2096.43	2110.89	2071.18	2151.38	2157.13	2212.68	2225.81	2200.49
69	1716.44	1724.94	1709.16	1749.50	1724.89	1759.93	1771.68	1824.39	1846.83	1804.70
72	1393.25	1406.64	1405.48	1426.07	1425.99	1429.18	1449.17	1468.21	1494.34	1456.66
75	1099.20	1109.27	1124.51	1138.22	1118.58	1138.10	1156.42	1159.67	1185.10	1152.17
78	838.38	839.76	869.53	859.64	857.75	881.19	902.07	884.30	904.22	876.74
81	610.13	626.45	632.44	626.45	626.98	632.60	652.28	598.62	613.15	574.94
84	388.19	388.76	406.99	408.37	381.79	414.55	392.09	388.58	375.05	364.50
87	194.31	192.98	185.35	182.17	186.21	164.49	182.78	190.94	170.41	160.72
90	42.49	45.27	36.04	32.13	36.74	37.41	33.99	36.70	16.48	15.02
93	6.90	10.25	10.00	10.65	6.34	10.02	13.06	10.75	0.82	4.74
96	0.50	0.18	0.91	1.83	1.97	0.35	1.02	1.08	0.24	0.82
99	0.01	0.49	1.83	1.35	0.91	0.93	0.77	0.05	0.04	0.11
102	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
114	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
117	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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CANDELA TABULATION - (Cont.)

135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
159	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Angles **Horizontal Angles**

	<u>200</u>	<u>210</u>	<u>220</u>	<u>230</u>	<u>240</u>	<u>250</u>	<u>260</u>	<u>270</u>	<u>280</u>	<u>290</u>
0	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75
3	9572.29	9577.91	9581.13	9586.60	9591.12	9594.56	9596.90	9597.78	9598.13	9597.57
6	9552.71	9559.04	9566.22	9574.39	9585.10	9592.00	9594.31	9592.56	9585.72	9577.81
9	9480.53	9469.03	9480.87	9498.25	9517.91	9532.79	9540.48	9539.06	9528.50	9509.12
12	9347.65	9332.84	9356.58	9375.86	9395.35	9407.95	9417.29	9422.03	9416.95	9401.84
15	9215.55	9198.06	9207.37	9238.43	9251.44	9254.42	9237.00	9240.25	9255.59	9272.44
18	9078.49	9070.13	9059.33	9087.86	9098.37	9082.67	9053.12	9043.41	9090.33	9116.86
21	8907.98	8893.68	8878.50	8895.19	8913.98	8884.94	8852.66	8868.83	8905.99	8921.42
24	8654.75	8618.08	8631.10	8660.98	8670.58	8626.46	8613.42	8657.22	8661.57	8653.47
27	8331.77	8345.87	8369.39	8397.76	8412.31	8352.08	8334.13	8347.69	8340.04	8351.03
30	8000.12	8041.20	8043.54	8049.58	8087.15	8071.91	8024.73	7971.52	7985.12	8054.10
33	7627.68	7686.96	7682.62	7652.67	7672.38	7690.30	7641.19	7572.98	7593.49	7663.81
36	7188.18	7290.69	7267.48	7216.40	7203.44	7229.05	7184.71	7155.56	7147.35	7190.52
39	6776.70	6772.54	6779.33	6731.49	6666.69	6742.12	6691.14	6708.02	6658.56	6715.36
42	6324.75	6242.83	6277.70	6212.44	6155.64	6184.64	6147.95	6201.46	6120.60	6180.95
45	5784.57	5671.70	5742.72	5685.83	5615.39	5620.61	5591.23	5620.54	5566.91	5625.55
48	5209.25	5128.41	5189.53	5114.25	5043.09	5040.96	5033.17	5015.95	5014.21	5071.48
51	4575.56	4631.58	4594.54	4537.58	4486.38	4427.26	4487.25	4442.24	4494.54	4483.56
54	4057.81	4037.95	3970.43	4014.90	3925.31	3886.25	3897.72	3902.70	3939.29	3913.17
57	3495.82	3478.18	3459.35	3512.29	3425.31	3379.79	3362.86	3389.46	3400.22	3368.01
60	3003.63	2950.24	2984.19	2978.49	2930.79	2903.00	2877.68	2905.29	2876.41	2887.97
63	2628.99	2513.66	2500.00	2474.29	2488.40	2474.87	2453.01	2455.70	2417.20	2464.70
66	2189.94	2142.12	2085.15	2067.47	2074.50	2069.81	2046.90	2047.72	1999.78	2063.89
69	1802.29	1735.31	1701.99	1688.41	1702.96	1694.76	1666.87	1685.21	1632.47	1694.59
72	1467.43	1405.97	1405.31	1355.16	1374.38	1379.78	1336.79	1357.86	1323.27	1374.01
75	1146.42	1119.12	1113.68	1076.57	1058.87	1087.35	1034.15	1054.42	1031.01	1075.22
78	852.07	862.09	837.42	812.22	800.91	791.90	765.97	773.60	763.62	787.75
81	579.78	574.30	552.03	527.94	506.44	493.57	476.43	493.37	488.11	521.07
84	323.06	329.05	306.08	281.71	276.81	267.75	264.17	288.09	283.51	287.62
87	120.43	113.04	112.76	105.61	99.20	89.19	98.33	94.70	103.18	97.63
90	12.89	13.38	11.78	14.06	23.93	22.49	19.92	21.54	19.70	14.94
93	9.49	9.83	10.62	14.78	17.75	22.36	17.64	16.36	22.54	16.37
96	0.38	0.74	1.96	2.93	0.99	2.09	3.62	1.49	4.14	1.28
99	1.34	1.12	1.37	1.66	0.46	0.36	1.66	0.24	2.27	0.26
102	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBPA48-LED175DMVFR50.IES

CANDELA TABULATION - (Cont.)

108	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
114	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
117	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
159	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert. Horizontal Angles
Angles

	300	310	320	330	340	350	360
0	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75	9573.75
3	9596.78	9595.69	9594.31	9593.38	9591.10	9587.99	9583.36
6	9569.07	9561.45	9561.91	9565.67	9569.07	9568.01	9568.24
9	9484.97	9464.07	9454.75	9454.79	9473.40	9483.16	9500.27
12	9377.31	9353.94	9341.30	9325.58	9335.88	9360.79	9392.67
15	9249.92	9226.19	9201.84	9194.37	9206.52	9227.37	9261.17
18	9087.15	9059.31	9046.00	9054.19	9057.35	9090.48	9087.30
21	8877.77	8851.78	8868.89	8882.37	8898.78	8903.64	8855.94
24	8617.83	8621.62	8637.45	8623.00	8686.61	8678.91	8598.45
27	8358.90	8366.66	8379.99	8354.60	8399.29	8408.63	8341.01
30	8043.90	8013.13	8034.58	8038.74	8077.12	8066.18	8043.14
33	7645.21	7624.08	7640.25	7648.45	7691.97	7667.65	7664.45
36	7202.35	7223.97	7216.46	7228.28	7214.84	7222.74	7228.87
39	6686.03	6764.89	6759.36	6752.67	6759.60	6757.61	6769.02
42	6154.35	6223.66	6285.38	6278.35	6262.34	6253.97	6282.80
45	5588.78	5669.59	5736.96	5721.34	5723.82	5709.41	5760.60
48	5024.67	5108.14	5150.62	5135.32	5193.57	5164.62	5197.67
51	4467.79	4532.35	4576.79	4588.69	4602.28	4662.40	4603.34
54	3889.31	3973.34	4010.49	4020.83	4118.41	4117.99	4035.54
57	3395.63	3444.60	3505.41	3517.56	3578.75	3574.21	3541.06
60	2909.22	2945.79	2981.11	2999.29	3038.55	3072.44	3074.13
63	2465.02	2485.30	2486.94	2540.68	2614.04	2598.69	2591.31
66	2050.93	2091.84	2099.99	2164.57	2174.76	2128.00	2146.70
69	1682.04	1717.52	1728.02	1765.02	1804.20	1751.08	1795.09
72	1370.94	1385.73	1423.60	1434.57	1464.31	1459.77	1495.22
75	1071.35	1094.62	1109.71	1137.28	1133.02	1172.15	1195.18
78	803.55	815.44	822.65	865.78	851.09	877.03	900.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBPA48-LED175DMVFR50.IES

CANDELA TABULATION - (Cont.)

81	538.21	569.32	578.69	623.64	634.53	633.89	663.72
84	317.33	326.33	323.77	385.66	377.10	407.04	427.67
87	108.75	126.16	151.63	144.75	167.07	185.13	198.13
90	19.73	25.78	23.97	23.25	23.97	28.64	40.29
93	16.39	14.61	10.68	4.96	3.78	4.29	4.56
96	0.98	2.69	1.88	1.01	0.37	1.14	0.69
99	0.48	1.12	0.93	1.13	0.68	0.21	0.08
102	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111	0.00	0.00	0.00	0.00	0.00	0.00	0.00
114	0.00	0.00	0.00	0.00	0.00	0.00	0.00
117	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	0.00	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00	0.00
132	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141	0.00	0.00	0.00	0.00	0.00	0.00	0.00
144	0.00	0.00	0.00	0.00	0.00	0.00	0.00
147	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	0.00	0.00	0.00	0.00	0.00	0.00	0.00
156	0.00	0.00	0.00	0.00	0.00	0.00	0.00
159	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBPA48-LED175DMVFR50.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2871.82	N.A.	12.20
0-30	7438.71	N.A.	31.60
0-40	11552.92	N.A.	49.00
0-60	19769.36	N.A.	83.90
0-80	23039.29	N.A.	97.80
0-90	23548.94	N.A.	100.00
10-90	22811.07	N.A.	96.80
20-40	8681.1	N.A.	36.80
20-50	12677.28	N.A.	53.80
40-70	10282.57	N.A.	43.60
60-80	3269.94	N.A.	13.90
70-80	1203.81	N.A.	5.10
80-90	509.64	N.A.	2.20
90-110	9.19	N.A.	0.00
90-120	9.19	N.A.	0.00
90-130	9.19	N.A.	0.00
90-150	9.19	N.A.	0.00
90-180	9.19	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	23558.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	737.87
10-20	2133.96
20-30	4566.89
30-40	4114.21
40-50	3996.18
50-60	4220.26
60-70	2066.13
70-80	1203.81
80-90	509.64
90-100	9.05
100-110	0.14
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

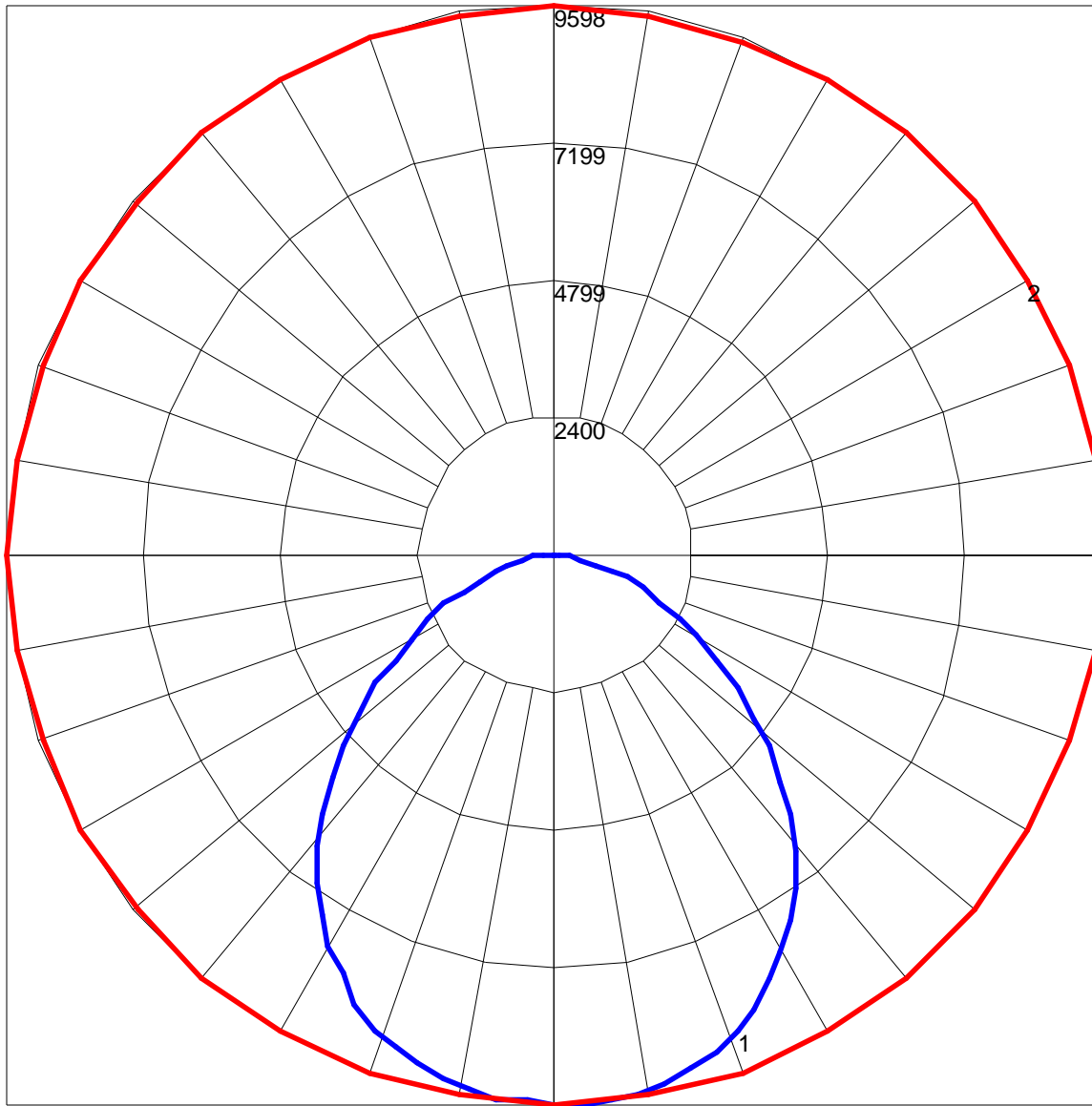
IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBPA48-LED175DMVFR50.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	28
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 9598.13 Located At Horizontal Angle = 280, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (280 - 100) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (3) (Through Max. Cd.)