



IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBPA48-LED260DMV50.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] LLI-17027-1-R01
 [TESTLAB] LightLab international (www.LightLabInt.com)
 [MANUFAC] Mobern Lighting Co
 [LUMCAT] HBPA48-LED260DMV50
 [LUMINAIRE] Mobern Lighting Co - 4' suspended high bay luminaire. Product ID: HBPA48-LED260DMV50
 [MORE] White painted formed steel housing with no lens.
 [MORE] 528 LEDs with 2 x 44 array on each of Six white PCBs mounted in two rows on ~ 7.5" centers.
 [MORE] Two Philips Advance Xitanium LED driver. One Model: XI190C275V054BSG1 and One Model: XI095C275V054BSS1 to
 [MORE] Operating at 120Vac and 60Hz.
 [OTHER] Absolute test - lamp lumens value set to -1
 [MORE] NA conventions used for C0 plane alignment and C-plane rotation direction.
 [MORE] The sample was tested at a distance of 8m.
 [MORE] This IES file extrapolated from LLI-17027-1-R01
 [DATE] This file created: Tuesday, January 16, 2018
 [ISSUEDATE] Tuesday, January 16, 2018

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	36780
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	260
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.13 m
Luminous Width (90-270)	0.36 m
Luminous Height	0.00 m

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	31107	31371	32053
55	30058	30650	31632
65	27888	28693	15544
75	23142	14135	15271
85	14462	7575	7946

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	12984.80112984.80112984.80112984.80112984.801				
0.5	13013.48212982.38412998.00212964.76312973.604				
1.0	13012.53312980.35012996.18212965.49712971.723				
1.5	13010.07112978.85112992.92312962.48412968.740				
2.0	13007.33312975.63912991.11812960.06712966.323				
2.5	13003.50812970.69812986.43812955.76912962.300				
3.0	12998.38412966.38412980.50312950.47612956.885				
3.5	12992.37312958.72112973.65012944.09812950.797				
4.0	12985.33612951.91412966.41512936.41912944.556				
4.5	12977.56612943.83812958.43012928.00612935.027				
5.0	12968.29612935.56212948.91612920.05212927.348				
5.5	12958.78212925.83412938.68312909.91012918.874				
6.0	12947.67712915.49312927.71512898.39212908.167				
6.5	12935.59312904.11312915.92212887.07312896.113				
7.0	12922.65212890.36212902.93512874.01012882.377				
7.5	12909.05412878.23212888.93912860.87012867.203				
8.0	12894.32312863.60812874.48412844.76312851.708				
8.5	12878.44612848.86312858.20912831.21112836.626				
9.0	12862.14012832.78612841.42912814.20112821.390				
9.5	12844.84012816.78612823.76112796.85512803.830				
10.0	12826.75912798.44612805.17612779.09612784.557				
10.5	12807.51712778.62212785.61212760.25112765.681				
11.0	12787.92212758.90512765.00812740.12112745.077				
11.5	12765.71212737.26112742.82912718.47712722.240				
12.0	12741.29912715.24912721.55112696.26712701.513				
12.5	12714.46912691.95312698.54612673.26112678.156				
13.0	12683.98412666.19412673.56712648.86312652.580				
13.5	12650.98912637.03912649.18512623.85412626.959				
14.0	12617.84212605.62112622.89012597.95712601.827				
14.5	12583.91512572.56512596.55012570.50012574.936				
15.0	12548.21412537.59812571.46412542.95212546.822				
15.5	12509.20812503.42612549.43712513.67412518.477				
16.0	12465.24612467.03612519.53312483.60212486.783				
16.5	12421.52912428.03012484.73412453.08612455.564				
17.0	12379.17412386.30212448.08412422.61512423.411				
17.5	12338.50112341.30012411.86212390.32512390.203				
18.0	12298.71512298.39412378.36312357.98812357.530				
18.5	12255.54912256.62012340.78012324.58112322.440				
19.0	12210.53212217.84412294.52412286.83012286.402				
19.5	12167.30512175.36612248.40612249.46112249.492				
20.0	12126.89212128.05412202.53212214.09612211.526				
20.5	12086.52512079.50412157.20912175.38112170.960				
21.0	12047.13712032.86512110.80012135.65612132.001				
21.5	12008.10011989.07212062.77012094.23412091.695				
22.0	11967.07611945.81412011.08312053.24012051.205				
22.5	11926.60211903.35111959.03012010.76212010.395				
23.0	11884.81211860.73611907.23711967.70311965.959				
23.5	11841.79911816.56011855.22911923.80211920.147				
24.0	11798.26611772.06311804.17011879.19811874.319				
24.5	11753.79911728.10111754.45711833.93711830.786				
25.0	11708.04811680.94311702.20511786.28911782.510				
25.5	11661.08811634.96211648.65211738.09011736.575				
26.0	11611.84911587.13011594.19711687.64311686.296				
26.5	11559.42911539.02411539.36011639.76511635.497				

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27.0	11502.97011489.34111485.01211589.34811586.320
27.5	11444.43111439.62811430.89411538.73311533.823
28.0	11384.45411386.12211376.92811486.35811481.907
28.5	11324.72211328.76011323.30011433.32611428.737
29.0	11260.87511270.68011268.89111378.25911374.527
29.5	11191.79711207.26211213.79311320.74511318.145
30.0	11122.99411145.05211159.10911262.42011262.267
30.5	11056.01211081.57211102.57411202.88711203.927
31.0	10990.89511013.33511044.58511143.75111145.847
31.5	10924.06610944.25710985.89311083.51411086.727
32.0	10855.44610871.38510928.25711020.92211027.270
32.5	10788.96810799.73710867.48410956.11110966.375
33.0	10725.21310731.86710806.97210890.62810905.741
33.5	10662.40710662.31510745.17510825.12910843.072
34.0	10600.48710589.78010680.94610759.21710780.403
34.5	10537.65010520.01310618.39910692.25010717.106
35.0	10474.10910452.57210552.36510625.13010652.847
35.5	10410.40010384.28910484.00610554.69010587.608
36.0	10346.33910319.28010412.49510483.83810520.319
36.5	10281.16110252.97010339.33310416.36510453.597
37.0	10213.27610185.54410264.73310342.48410383.478
37.5	10145.10110118.31710190.17910269.35310314.201
38.0	10071.00510048.74910113.85010195.25710244.634
38.5	9990.959 9978.478 10035.54810118.62310175.663
39.0	9910.746 9908.788 9953.178 10043.13510103.892
39.5	9829.950 9837.400 9870.134 9967.036 10031.326
40.0	9743.297 9761.499 9786.708 9888.168 9956.023
40.5	9652.375 9682.111 9707.350 9812.329 9881.560
41.0	9564.483 9599.007 9626.601 9733.890 9808.153
41.5	9478.885 9514.081 9542.456 9654.211 9731.457
42.0	9390.013 9428.269 9460.024 9573.263 9655.771
42.5	9304.002 9337.271 9377.424 9494.686 9576.139
43.0	9222.442 9243.031 9297.256 9411.076 9497.179
43.5	9142.503 9152.553 9218.113 9329.562 9417.577
44.0	9064.614 9063.329 9139.016 9246.013 9337.975
44.5	8983.376 8973.387 9058.481 9163.367 9254.824
45.0	8903.208 8885.219 8978.649 9080.798 9173.876
45.5	8821.877 8800.539 8896.676 8997.647 9091.230
46.0	8739.139 8716.103 8815.055 8912.416 9006.137
46.5	8656.478 8633.686 8733.128 8828.669 8920.171
47.0	8564.134 8552.325 8650.237 8743.514 8835.368
47.5	8466.849 8465.855 8564.975 8658.191 8746.267
48.0	8371.477 8382.077 8478.964 8571.079 8659.170
48.5	8267.906 8296.969 8388.685 8484.456 8571.629
49.0	8162.193 8206.827 8293.986 8395.446 8481.610
49.5	8063.684 8112.281 8199.806 8307.661 8392.479
50.0	7962.744 8014.124 8104.296 8218.361 8302.200
50.5	7866.301 7912.144 8002.392 8127.286 8209.259
51.0	7775.563 7806.416 7899.953 8037.099 8117.895
51.5	7685.865 7703.043 7798.385 7945.413 8023.532
52.0	7593.430 7598.630 7696.894 7852.656 7929.367
52.5	7502.692 7496.114 7596.856 7758.722 7833.612
53.0	7409.445 7399.732 7498.026 7665.475 7737.674
53.5	7312.130 7305.308 7400.329 7568.695 7639.823
54.0	7205.286 7211.741 7306.562 7472.436 7542.600
54.5	7095.825 7117.791 7211.894 7374.295 7444.092

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55.0	6978.334	7022.586	7115.894	7272.972	7343.870
55.5	6866.747	6927.045	7020.124	7171.098	7242.394
56.0	6754.228	6822.434	6924.063	7067.313	7111.565
56.5	6650.717	6711.872	6825.325	6961.126	6967.825
57.0	6552.714	6597.502	6725.119	6856.101	6860.705
57.5	6454.817	6481.861	6617.968	6749.027	6759.383
58.0	6355.759	6366.757	6507.636	6622.771	6655.658
58.5	6253.472	6259.453	6396.171	6467.116	6551.750
59.0	6139.239	6158.497	6282.336	6344.424	6447.995
59.5	6018.826	6057.649	6168.532	6232.485	6337.204
60.0	5896.823	5957.809	6058.582	6123.499	5963.408
60.5	5779.821	5856.548	5952.823	6013.060	5092.925
61.0	5671.233	5740.464	5848.471	5903.400	4549.875
61.5	5569.987	5623.233	5746.889	5791.447	4432.659
62.0	5466.981	5500.648	5643.929	5411.639	4351.589
62.5	5360.152	5379.716	5538.063	4567.466	4270.427
63.0	5240.840	5272.121	5430.132	4141.968	4187.215
63.5	5113.208	5168.948	5312.779	4043.919	3997.647
64.0	4986.631	5064.719	5192.733	3962.083	3262.934
64.5	4875.136	4956.895	5064.244	3879.560	2741.269
65.0	4770.570	4835.518	4908.283	3792.967	2658.913
65.5	4663.573	4706.402	4778.509	3438.490	2602.684
66.0	4545.103	4586.311	4666.295	2689.460	2546.302
66.5	4415.130	4479.130	4557.233	2469.744	2491.143
67.0	4288.476	4373.310	4445.661	2408.956	2435.709
67.5	4182.243	4264.155	4327.864	2351.411	2384.023
68.0	4075.628	4139.842	4007.024	2294.173	2333.239
68.5	3955.429	4009.685	3271.791	2237.790	2283.266
69.0	3822.841	3898.038	3016.021	2184.682	2233.905
69.5	3704.034	3793.396	2928.343	2133.684	2185.324
70.0	3597.756	3676.654	2846.263	2084.842	2134.999
70.5	3482.605	3547.431	2757.926	2037.669	2085.439
71.0	3349.343	3428.395	2363.358	1991.198	2037.822
71.5	3235.080	3322.789	1856.101	1944.468	1987.466
72.0	3129.398	3206.430	1781.945	1896.805	1938.518
72.5	3001.352	3078.629	1729.876	1849.677	1881.233
73.0	2881.337	2969.475	1677.410	1800.943	1826.243
73.5	2777.093	2859.157	1622.649	1747.528	1774.465
74.0	2648.405	2730.867	1571.054	1690.182	1738.763
74.5	2539.694	2622.814	1527.047	1635.513	1665.433
75.0	2424.405	2508.627	1480.821	1592.225	1599.842
75.5	2308.521	2389.866	1430.864	1546.106	1539.452
76.0	2200.269	2278.479	1387.697	1470.435	1475.070
76.5	2083.971	2146.058	1341.090	1407.965	1410.397
77.0	1977.432	2041.294	1291.637	1342.114	1347.285
77.5	1868.201	1919.581	1243.453	1277.044	1284.921
78.0	1752.989	1729.876	1184.302	1215.675	1225.924
78.5	1656.071	1349.212	1140.279	1153.863	1166.956
79.0	1549.502	1258.382	1079.568	1092.371	1099.530
79.5	1448.822	1170.673	1018.429	1034.643	1033.236
80.0	1342.359	852.525	954.169	968.502	977.450
80.5	1248.562	797.122	890.093	894.804	859.776
81.0	1150.635	759.814	831.187	842.995	506.262
81.5	1059.423	727.906	773.948	580.373	339.838
82.0	968.364	698.491	716.770	340.144	331.257
82.5	885.076	665.375	651.287	329.513	324.450

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83.0	802.170	623.677	599.142	320.412	316.313
83.5	720.992	572.144	440.641	310.546	306.783
84.0	646.101	516.541	292.114	299.028	307.548
84.5	576.901	454.790	279.709	300.267	363.349
85.0	510.193	399.540	267.242	324.664	280.305
85.5	446.316	350.622	251.701	265.988	268.894
86.0	372.680	300.068	266.095	251.655	250.401
86.5	301.399	241.911	220.114	231.357	230.286
87.0	236.680	188.741	201.254	208.825	207.418
87.5	185.743	170.217	178.998	182.852	185.468
88.0	152.627	149.782	152.734	161.896	161.346
88.5	126.715	116.313	126.883	130.891	131.304
89.0	84.543	88.275	94.287	95.510	97.223
89.5	53.491	51.900	57.239	58.478	59.380
90.0	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4772.53	N.A.	13.00
0-30	10180.28	N.A.	27.70
0-40	16780.57	N.A.	45.60
0-60	30090.15	N.A.	81.80
0-80	36354.5	N.A.	98.80
0-90	36779.99	N.A.	100.00
10-90	35549.46	N.A.	96.70
20-40	12008.04	N.A.	32.60
20-50	18951.08	N.A.	51.50
40-70	17575.14	N.A.	47.80
60-80	6264.36	N.A.	17.00
70-80	1998.79	N.A.	5.40
80-90	425.48	N.A.	1.20
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	36779.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1230.52
10-20	3542.01
20-30	5407.74
30-40	6600.3
40-50	6943.04
50-60	6366.54
60-70	4265.57
70-80	1998.79
80-90	425.48
90-100	0.00
100-110	0.00
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

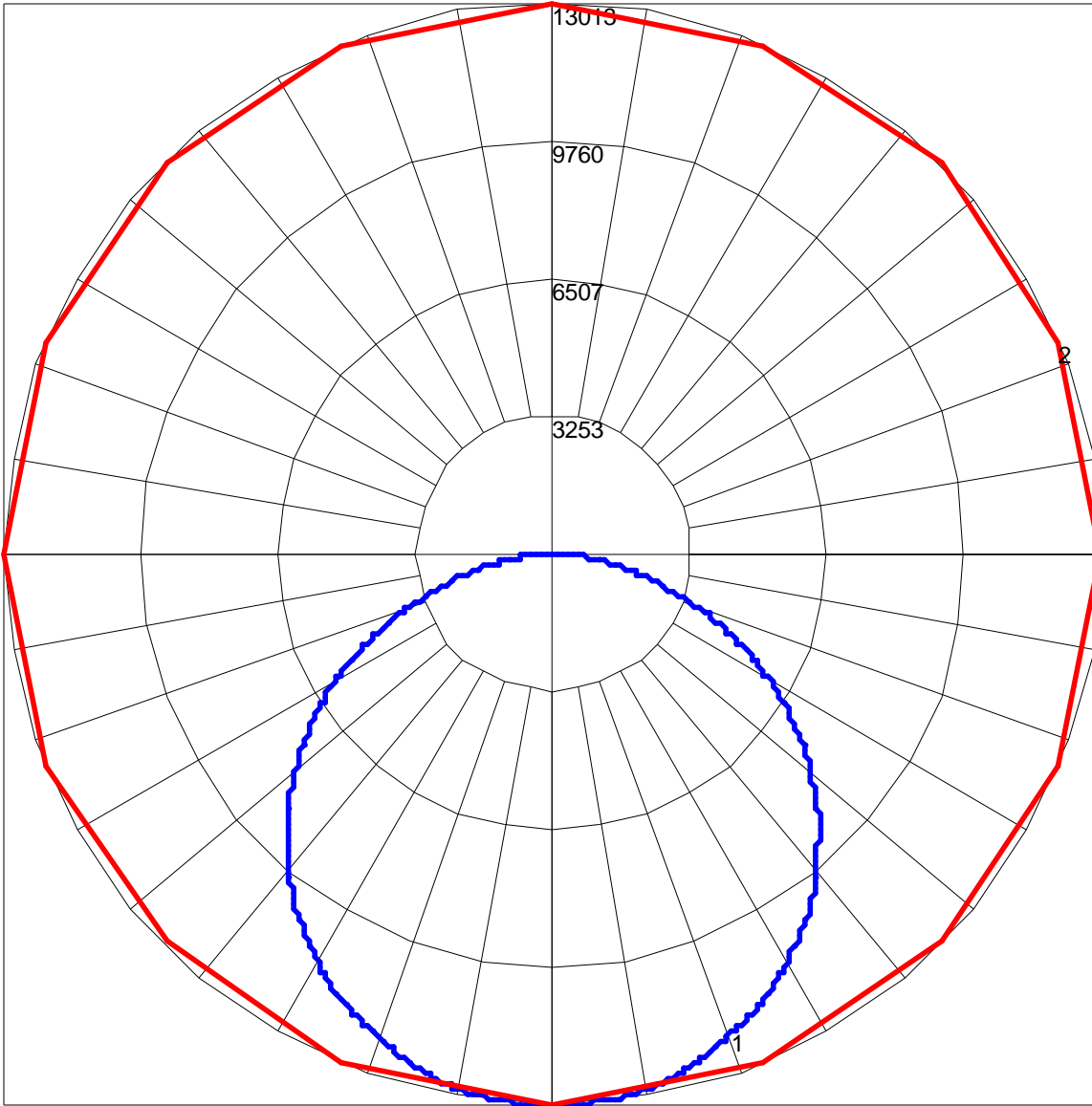
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	90	91	89	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	27	37	31	26	25

POLAR GRAPH



Maximum Candela = 13013.482 Located At Horizontal Angle = 0, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)