

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: SHAPER

Report Number: P241244

Luminaire Tested: **1800-X-80-L35-4-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241244
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25346)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1800-X-80-L35-4-M-UNV-STD-X-X
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT
MEDIUM DISTRIBUTION.
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7676.4 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.33
Luminous Opening: Circular (Dia: 1.17' x H: 0')
CIE Type: Direct

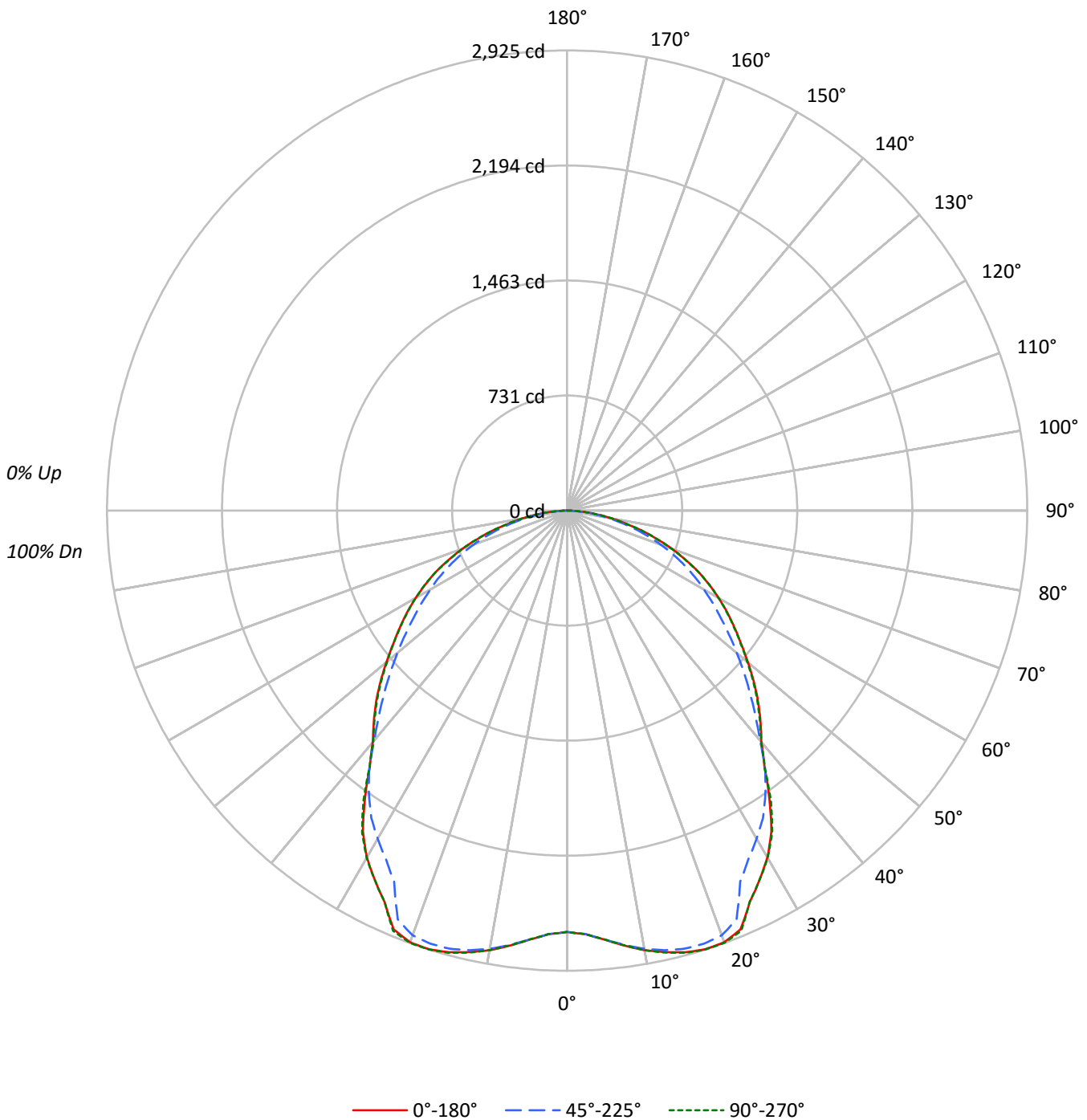
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		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	72	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42		53	47	42		52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	38		49	42	37		48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28		38	32	28		38	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26963	26963	26963
5°	27667	27667	27657
10°	29010	28913	29010
15°	30295	30059	30334
20°	31293	30787	31332
25°	30516	28911	30485
30°	29609	28006	29641
35°	27567	27010	27764
40°	25247	25061	25210
45°	24435	23427	24354
50°	23494	22075	23406
55°	22800	20960	22749
60°	22391	20225	22391
65°	21926	19611	21860
70°	20814	18644	20784
75°	18946	17149	19020
80°	16584	15053	16636
85°	14395	12535	14395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.4	3.4
10°-20°	819.6	10.7
20°-30°	1239.4	16.1
30°-40°	1352.9	17.6
40°-50°	1328.1	17.3
50°-60°	1162.7	15.1
60°-70°	873.7	11.4
70°-80°	499.5	6.5
80°-90°	136.2	1.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2323.3	30.3
0°-40°	3676.2	47.9
0°-60°	6167.0	80.3
0°-90°	7676.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7676.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2678	2678	2678	2678	2678	
5°	2737	2738	2737	2737	2736	265
15°	2906	2904	2884	2905	2910	822
25°	2747	2750	2602	2750	2744	1268
35°	2243	2133	2197	2124	2259	1398
45°	1716	1751	1645	1740	1710	1323
55°	1299	1319	1194	1315	1296	1165
65°	920	884	823	884	918	905
75°	487	468	441	469	489	517
85°	125	117	108	118	125	140
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8
2.5°	2695.7	2693.8	2694.8	2693.8	2695.7	2695.7	2694.8	2695.7	2694.8	2694.8	2694.8
5°	2737.3	2735.4	2736.3	2734.4	2737.3	2738.2	2737.3	2738.2	2738.2	2737.3	2737.3
7.5°	2789.2	2785.4	2786.3	2784.4	2787.3	2787.3	2786.3	2786.3	2785.4	2784.4	2785.4
10°	2837.3	2835.4	2835.4	2834.5	2836.4	2835.4	2833.5	2832.6	2828.8	2827.9	2829.8
12.5°	2874.1	2876.0	2878.8	2878.8	2877.9	2876.9	2872.2	2869.4	2863.7	2862.8	2864.7
15°	2906.2	2907.2	2910.0	2909.0	2906.2	2901.5	2896.8	2891.1	2886.4	2883.6	2886.4
17.5°	2923.2	2923.2	2922.3	2919.4	2913.8	2908.1	2901.5	2895.8	2891.1	2887.3	2891.1
20°	2920.4	2920.4	2915.6	2910.0	2900.5	2892.0	2885.4	2879.8	2875.1	2873.2	2876.0
22.5°	2880.7	2883.6	2879.8	2878.8	2871.3	2860.0	2846.7	2832.6	2817.5	2812.8	2819.4
25°	2746.7	2744.8	2746.7	2764.6	2769.3	2731.6	2683.5	2639.1	2612.7	2602.3	2616.4
27.5°	2647.6	2645.7	2622.1	2584.3	2532.4	2507.9	2511.7	2507.9	2501.3	2496.6	2503.2
30°	2546.6	2532.4	2468.2	2399.3	2349.3	2341.8	2363.5	2390.8	2407.8	2408.8	2406.0
32.5°	2416.3	2388.0	2305.0	2252.1	2231.3	2227.6	2234.2	2262.5	2301.2	2316.3	2296.5
35°	2242.7	2226.6	2175.6	2141.7	2135.1	2130.3	2119.0	2133.2	2181.3	2197.4	2179.4
37.5°	2062.4	2077.5	2055.8	2043.5	2042.6	2033.1	2017.1	2019.0	2044.4	2067.1	2041.6
40°	1920.8	1935.9	1950.1	1949.1	1945.3	1931.2	1918.9	1912.3	1910.4	1906.6	1912.3
42.5°	1819.8	1814.1	1841.5	1856.6	1847.2	1837.7	1827.4	1822.6	1787.7	1771.7	1792.4
45°	1716.0	1714.1	1733.0	1765.1	1757.5	1744.3	1741.5	1722.6	1663.1	1645.2	1667.8
47.5°	1609.3	1616.9	1633.9	1660.3	1665.0	1653.7	1645.2	1606.5	1546.1	1524.4	1545.1
50°	1499.8	1516.8	1540.4	1550.8	1555.5	1548.9	1543.2	1493.2	1431.9	1409.2	1432.8
52.5°	1395.1	1418.7	1449.8	1441.3	1437.5	1440.4	1430.9	1385.6	1326.2	1298.8	1327.1
55°	1298.8	1321.4	1348.8	1331.8	1313.9	1324.3	1315.8	1279.9	1228.0	1194.0	1226.1
57.5°	1208.2	1222.3	1244.0	1221.4	1200.6	1212.9	1204.4	1176.1	1127.9	1098.7	1129.8
60°	1111.9	1123.2	1135.5	1113.8	1092.1	1098.7	1094.9	1069.4	1029.8	1004.3	1027.9
62.5°	1015.6	1021.3	1029.8	1006.2	988.2	988.2	986.4	961.8	930.7	916.5	929.7
65°	920.3	919.3	922.2	898.6	885.4	883.5	879.7	857.0	832.5	823.1	833.4
67.5°	812.7	814.6	815.5	793.8	783.4	778.7	775.9	755.1	735.3	728.7	736.2
70°	707.0	707.9	707.9	688.1	680.5	673.0	670.2	654.1	638.1	633.3	640.0
72.5°	595.6	602.2	599.4	583.3	577.7	568.2	566.3	555.9	543.7	537.1	543.7
75°	487.0	496.5	493.6	479.5	472.9	463.4	464.4	458.7	445.5	440.8	447.4
77.5°	382.3	387.9	388.9	381.3	370.9	364.3	367.2	366.2	356.8	345.5	354.0
80°	286.0	292.6	293.5	286.9	278.4	272.8	276.6	276.6	269.0	259.6	267.1
82.5°	199.2	203.9	203.9	200.1	196.3	190.7	192.6	193.5	188.8	179.3	185.9
85°	124.6	125.5	123.6	120.8	118.0	116.1	116.1	118.0	114.2	108.5	113.3
87.5°	46.3	47.2	46.3	49.1	46.3	45.3	46.3	49.1	45.3	45.3	46.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8	2677.8
2.5°	2694.8	2695.7	2695.7	2694.8	2694.8	2694.8	2693.8	2694.8
5°	2737.3	2738.2	2738.2	2736.3	2737.3	2736.3	2735.4	2736.3
7.5°	2786.3	2788.2	2787.3	2788.2	2789.2	2787.3	2787.3	2787.3
10°	2831.6	2834.5	2836.4	2838.2	2839.2	2837.3	2838.2	2837.3
12.5°	2868.5	2874.1	2877.9	2879.8	2881.7	2881.7	2879.8	2877.9
15°	2891.1	2897.7	2902.4	2908.1	2911.9	2912.8	2910.9	2910.0
17.5°	2896.8	2902.4	2909.0	2914.7	2920.4	2924.1	2926.0	2925.1
20°	2880.7	2885.4	2893.0	2901.5	2909.0	2916.6	2922.3	2924.1
22.5°	2834.5	2847.7	2861.8	2872.2	2878.8	2882.6	2885.4	2892.0
25°	2644.8	2679.7	2730.6	2769.3	2762.7	2744.8	2738.2	2743.9
27.5°	2509.8	2506.0	2500.3	2530.5	2577.7	2619.3	2639.1	2648.5
30°	2389.0	2360.6	2334.2	2344.6	2392.7	2464.5	2524.9	2549.4
32.5°	2262.5	2223.8	2220.0	2226.6	2249.3	2297.4	2379.5	2425.8
35°	2129.4	2108.6	2120.0	2128.4	2136.0	2160.5	2217.2	2258.7
37.5°	2010.5	2006.7	2021.8	2032.2	2035.9	2048.2	2069.9	2064.3
40°	1905.7	1908.5	1921.7	1933.1	1940.6	1941.6	1928.3	1918.0
42.5°	1811.3	1823.6	1823.6	1837.7	1850.9	1833.0	1805.6	1813.2
45°	1715.0	1734.9	1733.9	1746.2	1758.4	1727.3	1704.6	1710.3
47.5°	1601.8	1639.5	1645.2	1658.4	1658.4	1626.3	1608.4	1601.8
50°	1486.6	1535.7	1542.3	1549.9	1546.1	1533.8	1510.2	1494.2
52.5°	1380.0	1426.2	1432.8	1430.0	1437.5	1443.2	1411.1	1391.3
55°	1275.2	1311.0	1319.5	1310.1	1328.0	1344.1	1313.9	1295.9
57.5°	1171.4	1198.7	1206.3	1198.7	1218.5	1236.5	1216.7	1204.4
60°	1066.6	1091.1	1095.8	1089.2	1112.8	1128.9	1119.4	1111.9
62.5°	963.7	980.7	985.4	988.2	1002.4	1021.3	1019.4	1018.4
65°	859.9	877.8	879.7	888.2	897.6	922.2	917.5	917.5
67.5°	758.9	771.1	774.0	787.2	791.0	814.6	811.7	808.0
70°	654.1	666.4	670.2	683.4	689.0	707.9	708.9	706.0
72.5°	557.8	562.6	566.3	578.6	583.3	601.3	601.3	597.5
75°	459.7	458.7	462.5	474.8	479.5	494.6	493.6	488.9
77.5°	367.2	362.4	365.3	373.8	379.4	390.8	387.0	383.2
80°	280.3	272.8	273.7	282.2	286.0	293.5	289.8	286.9
82.5°	198.2	191.6	189.7	196.3	202.0	202.9	202.0	200.1
85°	120.8	115.2	116.1	118.9	122.7	122.7	124.6	124.6
87.5°	47.2	44.4	44.4	47.2	47.2	48.1	47.2	45.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)