

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: P241246

Luminaire Tested: **1800-X-80-L40-4-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241246
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-L40-4-M-UNV-STD-X-X
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT
MEDIUM DISTRIBUTION.
Light Source: (168) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7703.4 lumens
Efficiency: N/A
Efficacy: 92.9 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

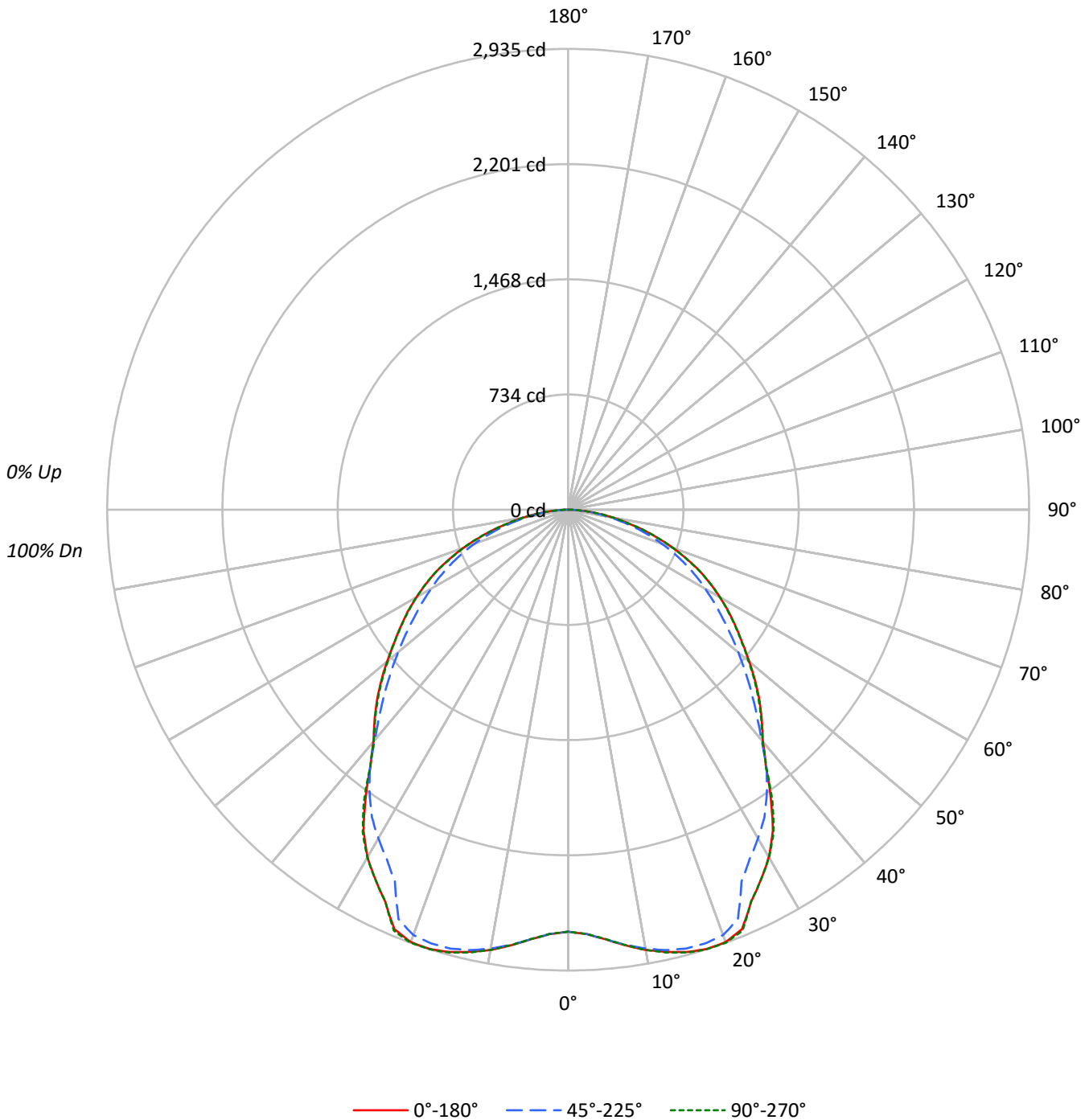
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	27057	27057	27057
5°	27764	27764	27754
10°	29112	29015	29112
15°	30401	30165	30441
20°	31402	30895	31443
25°	30622	29012	30591
30°	29712	28105	29746
35°	27663	27105	27861
40°	25335	25149	25299
45°	24521	23510	24440
50°	23577	22153	23487
55°	22879	21034	22830
60°	22470	20295	22470
65°	22003	19680	21936
70°	20888	18712	20858
75°	19016	17207	19086
80°	16642	15105	16694
85°	14441	12581	14441



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.3	3.4
10°-20°	822.4	10.7
20°-30°	1243.7	16.1
30°-40°	1357.7	17.6
40°-50°	1332.8	17.3
50°-60°	1166.8	15.1
60°-70°	876.8	11.4
70°-80°	501.2	6.5
80°-90°	136.7	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°	2331.5	30.3
0°-40°	3689.2	47.9
0°-60°	6188.7	80.3
0°-90°	7703.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7703.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2687	2687	2687	2687	2687	
5°	2747	2747	2747	2747	2746	265
15°	2916	2914	2894	2915	2920	825
25°	2756	2760	2611	2760	2754	1273
35°	2250	2140	2205	2132	2267	1403
45°	1722	1757	1651	1746	1716	1327
55°	1303	1324	1198	1319	1300	1169
65°	924	888	826	887	921	908
75°	489	470	442	470	491	519
85°	125	117	109	118	125	140
90°	0	0	0	0	0	



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CATALOG NUMBER: 1800-X-80-L40-4-M-UNV-STD-X-X

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2
2.5°	2705.2	2703.3	2704.3	2703.3	2705.2	2705.2	2704.3	2705.2	2704.3	2704.3	2704.3
5°	2746.9	2745.0	2745.9	2744.0	2746.9	2747.8	2746.9	2747.8	2747.8	2746.9	2746.9
7.5°	2799.0	2795.2	2796.1	2794.2	2797.1	2797.1	2796.1	2796.1	2795.2	2794.2	2795.2
10°	2847.3	2845.4	2845.4	2844.4	2846.3	2845.4	2843.5	2842.5	2838.8	2837.8	2839.7
12.5°	2884.2	2886.1	2889.0	2889.0	2888.0	2887.1	2882.3	2879.5	2873.8	2872.9	2874.7
15°	2916.4	2917.4	2920.2	2919.3	2916.4	2911.7	2907.0	2901.3	2896.5	2893.7	2896.5
17.5°	2933.5	2933.5	2932.5	2929.7	2924.0	2918.3	2911.7	2906.0	2901.3	2897.5	2901.3
20°	2930.6	2930.6	2925.9	2920.2	2910.7	2902.2	2895.6	2889.9	2885.2	2883.3	2886.1
22.5°	2890.8	2893.7	2889.9	2889.0	2881.4	2870.0	2856.8	2842.5	2827.4	2822.7	2829.3
25°	2756.3	2754.5	2756.3	2774.3	2779.1	2741.2	2692.9	2648.4	2621.8	2611.4	2625.6
27.5°	2656.9	2655.0	2631.3	2593.4	2541.3	2516.7	2520.5	2516.7	2510.1	2505.3	2512.0
30°	2555.5	2541.3	2476.9	2407.8	2357.6	2350.0	2371.8	2399.3	2416.3	2417.3	2414.4
32.5°	2424.8	2396.4	2313.1	2260.0	2239.2	2235.4	2242.0	2270.4	2309.3	2324.4	2304.5
35°	2250.5	2234.4	2183.3	2149.2	2142.6	2137.8	2126.5	2140.7	2189.0	2205.1	2187.1
37.5°	2069.6	2084.8	2063.0	2050.7	2049.7	2040.3	2024.2	2026.1	2051.6	2074.4	2048.8
40°	1927.5	1942.7	1956.9	1956.0	1952.2	1938.0	1925.7	1919.0	1917.1	1913.3	1919.0
42.5°	1826.2	1820.5	1848.0	1863.1	1853.7	1844.2	1833.8	1829.0	1794.0	1777.9	1798.7
45°	1722.0	1720.1	1739.1	1771.3	1763.7	1750.4	1747.6	1728.6	1669.0	1651.0	1673.7
47.5°	1615.0	1622.6	1639.6	1666.1	1670.9	1659.5	1651.0	1612.1	1551.5	1529.7	1550.6
50°	1505.1	1522.1	1545.8	1556.2	1561.0	1554.4	1548.7	1498.5	1436.9	1414.2	1437.8
52.5°	1400.0	1423.6	1454.9	1446.4	1442.6	1445.4	1436.0	1390.5	1330.8	1303.3	1331.8
55°	1303.3	1326.1	1353.5	1336.5	1318.5	1328.9	1320.4	1284.4	1232.3	1198.2	1230.4
57.5°	1212.4	1226.6	1248.4	1225.7	1204.8	1217.2	1208.6	1180.2	1131.9	1102.5	1133.8
60°	1115.8	1127.2	1139.5	1117.7	1095.9	1102.5	1098.8	1073.2	1033.4	1007.8	1031.5
62.5°	1019.2	1024.9	1033.4	1009.7	991.7	991.7	989.8	965.2	933.9	919.7	933.0
65°	923.5	922.6	925.4	901.7	888.5	886.6	882.8	860.1	835.4	826.0	836.4
67.5°	815.5	817.4	818.4	796.6	786.2	781.4	778.6	757.8	737.9	731.2	738.8
70°	709.5	710.4	710.4	690.5	682.9	675.4	672.5	656.4	640.3	635.6	642.2
72.5°	597.7	604.3	601.5	585.4	579.7	570.2	568.3	557.9	545.6	539.0	545.6
75°	488.8	498.2	495.4	481.2	474.5	465.1	466.0	460.3	447.1	442.3	449.0
77.5°	383.6	389.3	390.2	382.7	372.2	365.6	368.5	367.5	358.0	346.7	355.2
80°	287.0	293.6	294.6	287.9	279.4	273.7	277.5	277.5	270.0	260.5	268.1
82.5°	199.9	204.6	204.6	200.8	197.0	191.3	193.2	194.2	189.4	180.0	186.6
85°	125.0	126.0	124.1	121.2	118.4	116.5	116.5	118.4	114.6	108.9	113.7
87.5°	46.4	47.4	46.4	49.3	46.4	45.5	46.4	49.3	45.5	45.5	46.4
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°	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2	2687.2
2.5°	2704.3	2705.2	2705.2	2704.3	2704.3	2704.3	2703.3	2704.3
5°	2746.9	2747.8	2747.8	2745.9	2746.9	2745.9	2745.0	2745.9
7.5°	2796.1	2798.0	2797.1	2798.0	2799.0	2797.1	2797.1	2797.1
10°	2841.6	2844.4	2846.3	2848.2	2849.2	2847.3	2848.2	2847.3
12.5°	2878.5	2884.2	2888.0	2889.9	2891.8	2891.8	2889.9	2888.0
15°	2901.3	2907.9	2912.6	2918.3	2922.1	2923.1	2921.2	2920.2
17.5°	2907.0	2912.6	2919.3	2924.9	2930.6	2934.4	2936.3	2935.4
20°	2890.8	2895.6	2903.2	2911.7	2919.3	2926.8	2932.5	2934.4
22.5°	2844.4	2857.7	2871.9	2882.3	2889.0	2892.7	2895.6	2902.2
25°	2654.1	2689.1	2740.2	2779.1	2772.4	2754.5	2747.8	2753.5
27.5°	2518.6	2514.8	2509.1	2539.4	2586.8	2628.5	2648.4	2657.8
30°	2397.4	2368.9	2342.4	2352.8	2401.1	2473.1	2533.8	2558.4
32.5°	2270.4	2231.6	2227.8	2234.4	2257.2	2305.5	2387.9	2434.3
35°	2136.9	2116.0	2127.4	2135.9	2143.5	2168.1	2225.0	2266.6
37.5°	2017.5	2013.7	2028.9	2039.3	2043.1	2055.4	2077.2	2071.5
40°	1912.4	1915.2	1928.5	1939.9	1947.4	1948.4	1935.1	1924.7
42.5°	1817.7	1830.0	1830.0	1844.2	1857.5	1839.5	1812.0	1819.6
45°	1721.1	1741.0	1740.0	1752.3	1764.6	1733.4	1710.6	1716.3
47.5°	1607.4	1645.3	1651.0	1664.2	1664.2	1632.0	1614.0	1607.4
50°	1491.8	1541.1	1547.7	1555.3	1551.5	1539.2	1515.5	1499.4
52.5°	1384.8	1431.2	1437.8	1435.0	1442.6	1448.3	1416.1	1396.2
55°	1279.7	1315.7	1324.2	1314.7	1332.7	1348.8	1318.5	1300.5
57.5°	1175.5	1202.9	1210.5	1202.9	1222.8	1240.8	1220.9	1208.6
60°	1070.3	1095.0	1099.7	1093.1	1116.7	1132.8	1123.4	1115.8
62.5°	967.1	984.1	988.9	991.7	1005.9	1024.9	1023.0	1022.0
65°	862.9	880.9	882.8	891.3	900.8	925.4	920.7	920.7
67.5°	761.5	773.9	776.7	790.0	793.8	817.4	814.6	810.8
70°	656.4	668.7	672.5	685.8	691.5	710.4	711.3	708.5
72.5°	559.8	564.5	568.3	580.6	585.4	603.4	603.4	599.6
75°	461.3	460.3	464.1	476.4	481.2	496.3	495.4	490.6
77.5°	368.5	363.7	366.6	375.1	380.8	392.1	388.4	384.6
80°	281.3	273.7	274.7	283.2	287.0	294.6	290.8	287.9
82.5°	198.9	192.3	190.4	197.0	202.7	203.6	202.7	200.8
85°	121.2	115.6	116.5	119.3	123.1	123.1	125.0	125.0
87.5°	47.4	44.5	44.5	47.4	47.4	48.3	47.4	45.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)