

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: P241242

Luminaire Tested: **1800-X-80-L30-4-M-UNV-STD-X-X**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241242  
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-L30-4-M-UNV-STD-X-X  
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT  
MEDIUM DISTRIBUTION.  
Light Source: (168) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7242.1 lumens  
Efficiency: N/A  
Efficacy: 87.4 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

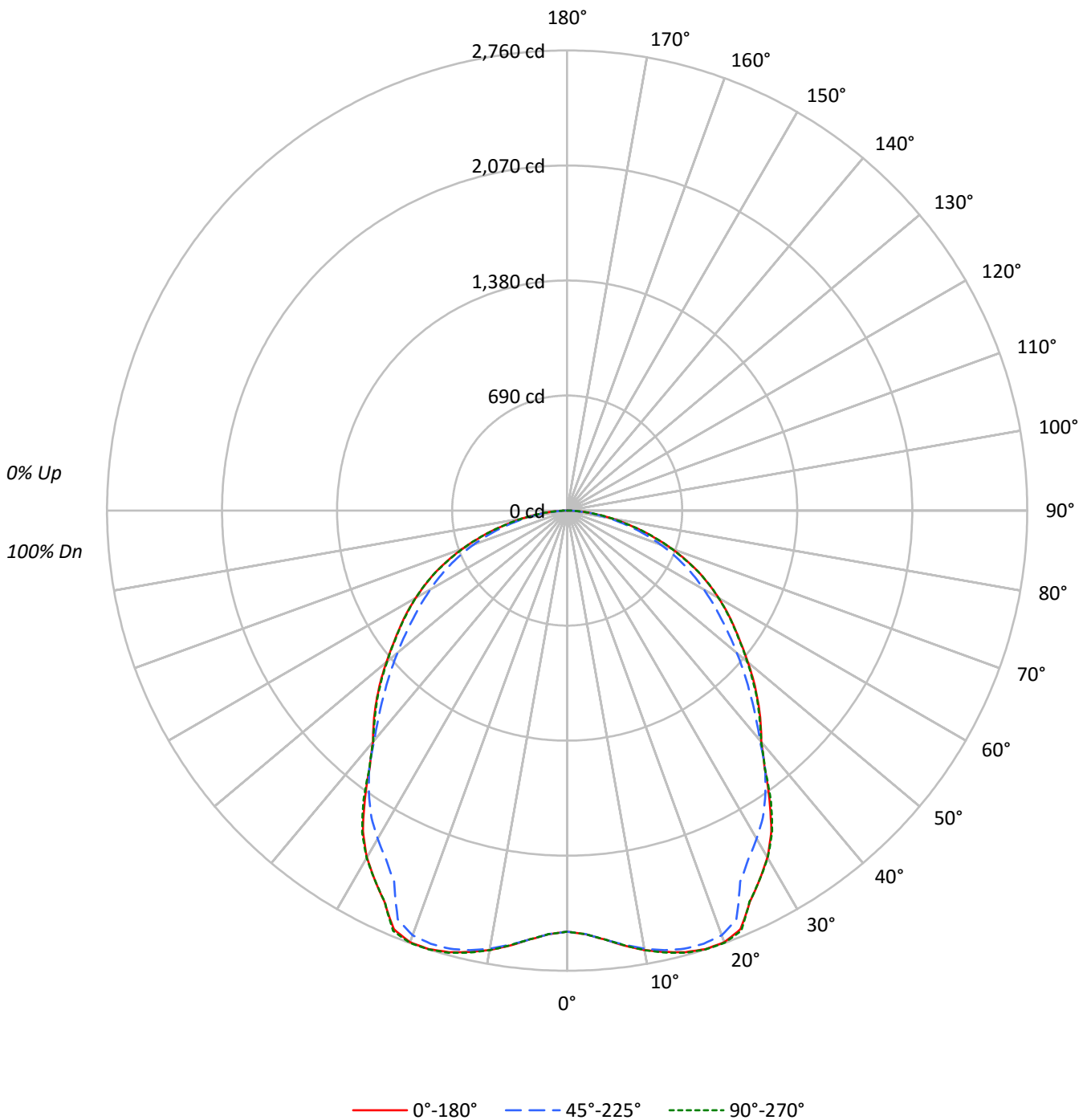
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	25437	25437	25437
5°	26102	26102	26092
10°	27369	27278	27369
15°	28581	28358	28619
20°	29523	29045	29560
25°	28789	27276	28759
30°	27933	26422	27965
35°	26007	25483	26193
40°	23819	23644	23784
45°	23053	22101	22977
50°	22165	20826	22081
55°	21510	19775	21462
60°	21125	19081	21125
65°	20685	18500	20623
70°	19636	17590	19610
75°	17876	16180	17946
80°	15644	14201	15697
85°	13575	11830	13575



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.4	3.4
10°-20°	773.2	10.7
20°-30°	1169.3	16.1
30°-40°	1276.4	17.6
40°-50°	1253.0	17.3
50°-60°	1096.9	15.1
60°-70°	824.3	11.4
70°-80°	471.2	6.5
80°-90°	128.5	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°	2191.9	30.3
0°-40°	3468.3	47.9
0°-60°	5818.1	80.3
0°-90°	7242.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7242.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2526	2526	2526	2526	2526	
5°	2582	2583	2582	2582	2582	250
15°	2742	2740	2720	2741	2745	776
25°	2591	2595	2455	2594	2589	1197
35°	2116	2012	2073	2004	2131	1319
45°	1619	1652	1552	1642	1614	1248
55°	1225	1244	1126	1240	1223	1099
65°	868	834	776	834	866	854
75°	460	442	416	442	461	488
85°	118	110	102	111	118	132
90°	0	0	0	0	0	



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CATALOG NUMBER: 1800-X-80-L30-4-M-UNV-STD-X-X

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3
2.5°	2543.2	2541.5	2542.3	2541.5	2543.2	2543.2	2542.3	2543.2	2542.3	2542.3	2542.3
5°	2582.4	2580.6	2581.5	2579.7	2582.4	2583.3	2582.4	2583.3	2583.3	2582.4	2582.4
7.5°	2631.4	2627.8	2628.7	2626.9	2629.6	2629.6	2628.7	2628.7	2627.8	2626.9	2627.8
10°	2676.8	2675.0	2675.0	2674.1	2675.9	2675.0	2673.2	2672.4	2668.8	2667.9	2669.7
12.5°	2711.5	2713.3	2716.0	2716.0	2715.1	2714.2	2709.8	2707.1	2701.7	2700.8	2702.6
15°	2741.8	2742.7	2745.4	2744.5	2741.8	2737.4	2732.9	2727.6	2723.1	2720.4	2723.1
17.5°	2757.8	2757.8	2756.9	2754.3	2748.9	2743.6	2737.4	2732.0	2727.6	2724.0	2727.6
20°	2755.2	2755.2	2750.7	2745.4	2736.5	2728.5	2722.2	2716.9	2712.4	2710.6	2713.3
22.5°	2717.8	2720.4	2716.9	2716.0	2708.9	2698.2	2685.7	2672.4	2658.1	2653.7	2659.9
25°	2591.3	2589.5	2591.3	2608.2	2612.7	2577.1	2531.7	2489.8	2464.9	2455.1	2468.4
27.5°	2497.8	2496.0	2473.8	2438.2	2389.2	2366.0	2369.6	2366.0	2359.8	2355.3	2361.6
30°	2402.5	2389.2	2328.6	2263.6	2216.4	2209.3	2229.8	2255.6	2271.6	2272.5	2269.9
32.5°	2279.6	2252.9	2174.6	2124.7	2105.1	2101.5	2107.8	2134.5	2171.0	2185.3	2166.6
35°	2115.8	2100.7	2052.6	2020.5	2014.3	2009.8	1999.1	2012.5	2057.9	2073.1	2056.1
37.5°	1945.7	1960.0	1939.5	1927.9	1927.0	1918.1	1903.0	1904.8	1928.8	1950.2	1926.1
40°	1812.1	1826.4	1839.7	1838.9	1835.3	1821.9	1810.4	1804.1	1802.3	1798.8	1804.1
42.5°	1716.9	1711.5	1737.3	1751.6	1742.7	1733.8	1724.0	1719.5	1686.6	1671.4	1691.0
45°	1618.9	1617.1	1634.9	1665.2	1658.1	1645.6	1642.9	1625.1	1569.0	1552.1	1573.5
47.5°	1518.3	1525.4	1541.4	1566.4	1570.8	1560.1	1552.1	1515.6	1458.6	1438.1	1457.7
50°	1415.0	1431.0	1453.3	1463.1	1467.5	1461.3	1455.9	1408.8	1350.9	1329.5	1351.8
52.5°	1316.1	1338.4	1367.8	1359.8	1356.2	1358.9	1350.0	1307.2	1251.1	1225.3	1252.0
55°	1225.3	1246.7	1272.5	1256.5	1239.6	1249.4	1241.3	1207.5	1158.5	1126.5	1156.7
57.5°	1139.8	1153.2	1173.7	1152.3	1132.7	1144.3	1136.3	1109.5	1064.1	1036.5	1065.9
60°	1049.0	1059.7	1071.3	1050.8	1030.3	1036.5	1033.0	1008.9	971.5	947.5	969.7
62.5°	958.2	963.5	971.5	949.3	932.3	932.3	930.6	907.4	878.0	864.7	877.1
65°	868.2	867.3	870.0	847.7	835.3	833.5	829.9	808.6	785.4	776.5	786.3
67.5°	766.7	768.5	769.4	748.9	739.1	734.7	732.0	712.4	693.7	687.5	694.6
70°	667.0	667.9	667.9	649.2	642.0	634.9	632.2	617.1	602.0	597.5	603.8
72.5°	561.9	568.1	565.5	550.3	545.0	536.1	534.3	524.5	512.9	506.7	512.9
75°	459.5	468.4	465.7	452.4	446.1	437.2	438.1	432.8	420.3	415.9	422.1
77.5°	360.6	366.0	366.9	359.8	350.0	343.7	346.4	345.5	336.6	325.9	333.9
80°	269.8	276.1	276.9	270.7	262.7	257.4	260.9	260.9	253.8	244.9	252.0
82.5°	187.9	192.3	192.3	188.8	185.2	179.9	181.7	182.5	178.1	169.2	175.4
85°	117.5	118.4	116.7	114.0	111.3	109.5	109.5	111.3	107.7	102.4	106.9
87.5°	43.6	44.5	43.6	46.3	43.6	42.7	43.6	46.3	42.7	42.7	43.6
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°	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3	2526.3
2.5°	2542.3	2543.2	2543.2	2542.3	2542.3	2542.3	2541.5	2542.3
5°	2582.4	2583.3	2583.3	2581.5	2582.4	2581.5	2580.6	2581.5
7.5°	2628.7	2630.5	2629.6	2630.5	2631.4	2629.6	2629.6	2629.6
10°	2671.5	2674.1	2675.9	2677.7	2678.6	2676.8	2677.7	2676.8
12.5°	2706.2	2711.5	2715.1	2716.9	2718.7	2718.7	2716.9	2715.1
15°	2727.6	2733.8	2738.2	2743.6	2747.2	2748.0	2746.3	2745.4
17.5°	2732.9	2738.2	2744.5	2749.8	2755.2	2758.7	2760.5	2759.6
20°	2717.8	2722.2	2729.3	2737.4	2744.5	2751.6	2756.9	2758.7
22.5°	2674.1	2686.6	2700.0	2709.8	2716.0	2719.5	2722.2	2728.5
25°	2495.1	2528.1	2576.2	2612.7	2606.5	2589.5	2583.3	2588.6
27.5°	2367.8	2364.2	2358.9	2387.4	2431.9	2471.1	2489.8	2498.7
30°	2253.8	2227.1	2202.2	2212.0	2257.4	2325.1	2382.1	2405.2
32.5°	2134.5	2098.0	2094.4	2100.7	2122.0	2167.4	2244.9	2288.6
35°	2008.9	1989.3	2000.0	2008.0	2015.2	2038.3	2091.8	2130.9
37.5°	1896.7	1893.2	1907.4	1917.2	1920.8	1932.4	1952.8	1947.5
40°	1797.9	1800.6	1813.0	1823.7	1830.8	1831.7	1819.3	1809.5
42.5°	1708.8	1720.4	1720.4	1733.8	1746.2	1729.3	1703.5	1710.6
45°	1618.0	1636.7	1635.8	1647.4	1659.0	1629.6	1608.2	1613.6
47.5°	1511.2	1546.8	1552.1	1564.6	1564.6	1534.3	1517.4	1511.2
50°	1402.5	1448.8	1455.1	1462.2	1458.6	1447.0	1424.8	1409.6
52.5°	1301.9	1345.5	1351.8	1349.1	1356.2	1361.6	1331.3	1312.6
55°	1203.0	1236.9	1244.9	1236.0	1252.9	1268.1	1239.6	1222.6
57.5°	1105.1	1130.9	1138.0	1130.9	1149.6	1166.5	1147.8	1136.3
60°	1006.3	1029.4	1033.9	1027.6	1049.9	1065.0	1056.1	1049.0
62.5°	909.2	925.2	929.7	932.3	945.7	963.5	961.7	960.8
65°	811.2	828.2	829.9	837.9	846.9	870.0	865.6	865.6
67.5°	716.0	727.5	730.2	742.7	746.2	768.5	765.8	762.3
70°	617.1	628.7	632.2	644.7	650.1	667.9	668.8	666.1
72.5°	526.3	530.7	534.3	545.9	550.3	567.2	567.2	563.7
75°	433.7	432.8	436.3	447.9	452.4	466.6	465.7	461.3
77.5°	346.4	341.9	344.6	352.6	358.0	368.7	365.1	361.5
80°	264.5	257.4	258.2	266.3	269.8	276.9	273.4	270.7
82.5°	187.0	180.8	179.0	185.2	190.6	191.5	190.6	188.8
85°	114.0	108.6	109.5	112.2	115.8	115.8	117.5	117.5
87.5°	44.5	41.9	41.9	44.5	44.5	45.4	44.5	42.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)