

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: P241234

Luminaire Tested: **1800-X-80-L30-3-M-UNV-STD-X-X**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241234  
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-L30-3-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: 6375.3 lumens  
Efficiency: N/A  
Efficacy: 90.3 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

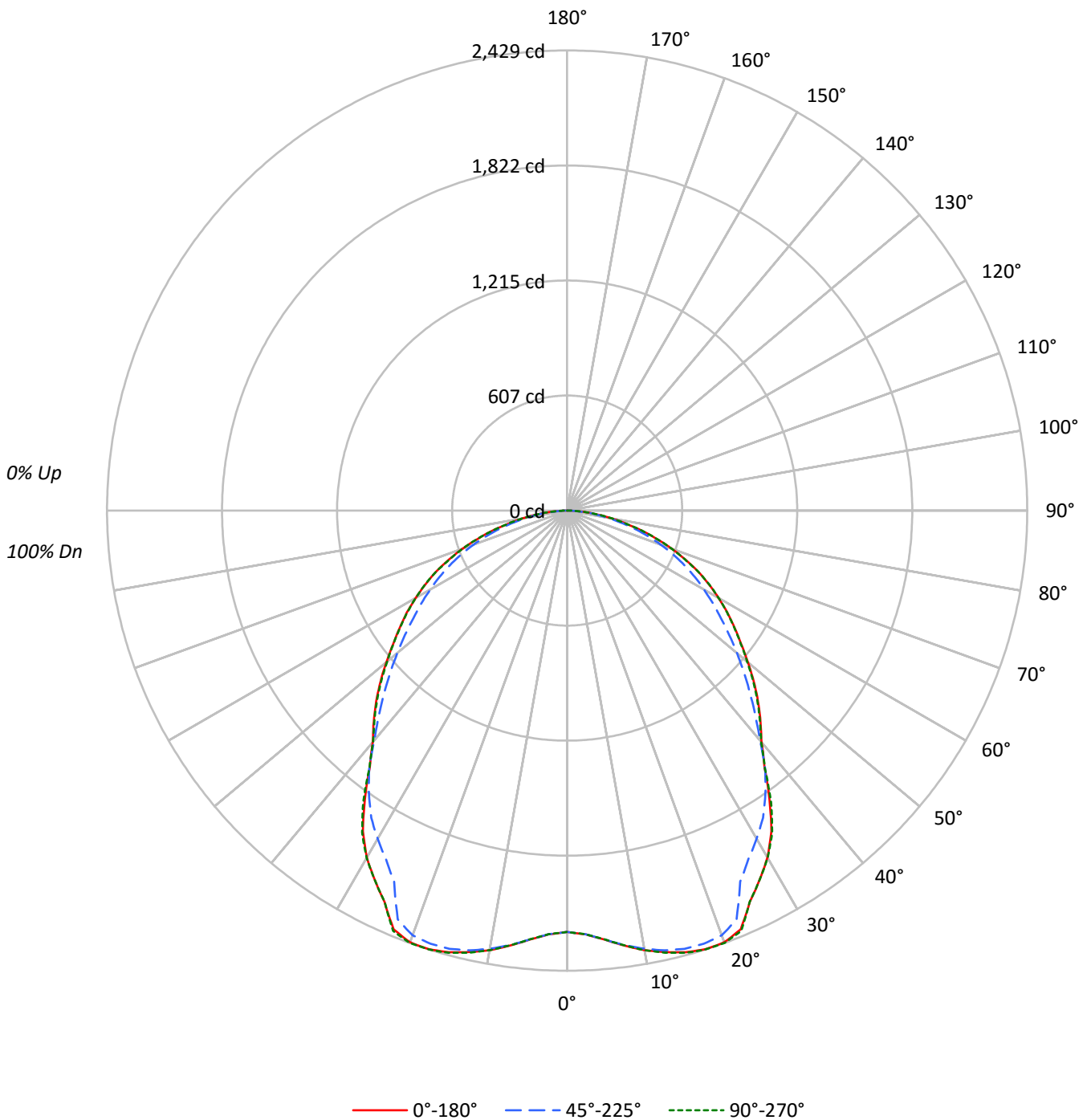
Input Watts (W): 70.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84				84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71				71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60				60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52				52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45				45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39				39
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35				35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31				31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28				28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26				26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	22392	22392	22392
5°	22977	22977	22969
10°	24093	24013	24093
15°	25160	24964	25193
20°	25989	25569	26022
25°	25344	24011	25317
30°	24590	23259	24617
35°	22894	22432	23059
40°	20968	20814	20937
45°	20293	19456	20226
50°	19512	18334	19438
55°	18935	17407	18894
60°	18595	16797	18595
65°	18210	16287	18155
70°	17284	15485	17263
75°	15737	14243	15799
80°	13771	12502	13818
85°	11957	10409	11957



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.6	3.4
10°-20°	680.7	10.7
20°-30°	1029.3	16.1
30°-40°	1123.6	17.6
40°-50°	1103.0	17.3
50°-60°	965.6	15.1
60°-70°	725.6	11.4
70°-80°	414.8	6.5
80°-90°	113.1	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°	1929.5	30.3
0°-40°	3053.1	47.9
0°-60°	5121.8	80.3
0°-90°	6375.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6375.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2224	2224	2224	2224	2224	
5°	2273	2274	2273	2273	2272	220
15°	2414	2412	2395	2413	2417	683
25°	2281	2284	2161	2284	2279	1053
35°	1862	1771	1825	1764	1876	1161
45°	1425	1454	1366	1445	1420	1099
55°	1079	1096	992	1092	1076	967
65°	764	734	684	734	762	752
75°	404	389	366	389	406	429
85°	104	97	90	98	104	116
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°	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9
2.5°	2238.8	2237.3	2238.0	2237.3	2238.8	2238.8	2238.0	2238.8	2238.0	2238.0	2238.0
5°	2273.3	2271.7	2272.5	2271.0	2273.3	2274.1	2273.3	2274.1	2274.1	2273.3	2273.3
7.5°	2316.4	2313.3	2314.1	2312.5	2314.9	2314.9	2314.1	2314.1	2313.3	2312.5	2313.3
10°	2356.4	2354.8	2354.8	2354.1	2355.6	2354.8	2353.3	2352.5	2349.4	2348.6	2350.1
12.5°	2387.0	2388.5	2390.9	2390.9	2390.1	2389.3	2385.4	2383.1	2378.4	2377.6	2379.1
15°	2413.6	2414.4	2416.8	2416.0	2413.6	2409.7	2405.8	2401.1	2397.2	2394.8	2397.2
17.5°	2427.7	2427.7	2427.0	2424.6	2419.9	2415.2	2409.7	2405.0	2401.1	2398.0	2401.1
20°	2425.4	2425.4	2421.5	2416.8	2408.9	2401.9	2396.4	2391.7	2387.8	2386.2	2388.5
22.5°	2392.5	2394.8	2391.7	2390.9	2384.6	2375.2	2364.2	2352.5	2339.9	2336.0	2341.5
25°	2281.2	2279.6	2281.2	2296.0	2300.0	2268.6	2228.6	2191.8	2169.8	2161.2	2173.0
27.5°	2198.8	2197.3	2177.7	2146.3	2103.2	2082.8	2086.0	2082.8	2077.3	2073.4	2078.9
30°	2115.0	2103.2	2049.9	1992.7	1951.1	1944.9	1962.9	1985.6	1999.7	2000.5	1998.2
32.5°	2006.8	1983.3	1914.3	1870.4	1853.1	1850.0	1855.5	1879.0	1911.2	1923.7	1907.2
35°	1862.5	1849.2	1806.9	1778.7	1773.2	1769.3	1759.9	1771.6	1811.6	1824.9	1810.0
37.5°	1712.8	1725.4	1707.3	1697.1	1696.4	1688.5	1675.2	1676.8	1697.9	1716.7	1695.6
40°	1595.2	1607.8	1619.5	1618.8	1615.6	1603.9	1593.7	1588.2	1586.6	1583.5	1588.2
42.5°	1511.4	1506.7	1529.4	1541.9	1534.1	1526.3	1517.6	1513.7	1484.7	1471.4	1488.6
45°	1425.1	1423.6	1439.2	1465.9	1459.6	1448.6	1446.3	1430.6	1381.2	1366.3	1385.2
47.5°	1336.6	1342.8	1356.9	1378.9	1382.8	1373.4	1366.3	1334.2	1284.0	1266.0	1283.2
50°	1245.6	1259.7	1279.3	1287.9	1291.9	1286.4	1281.7	1240.1	1189.2	1170.4	1190.0
52.5°	1158.6	1178.2	1204.1	1197.0	1193.9	1196.2	1188.4	1150.8	1101.4	1078.6	1102.2
55°	1078.6	1097.5	1120.2	1106.1	1091.2	1099.8	1092.8	1063.0	1019.9	991.6	1018.3
57.5°	1003.4	1015.2	1033.2	1014.4	997.1	1007.3	1000.3	976.7	936.8	912.5	938.3
60°	923.4	932.8	943.0	925.0	907.0	912.5	909.3	888.2	855.2	834.1	853.7
62.5°	843.5	848.2	855.2	835.6	820.7	820.7	819.2	798.8	772.9	761.2	772.1
65°	764.3	763.5	765.9	746.3	735.3	733.7	730.6	711.8	691.4	683.6	692.2
67.5°	674.9	676.5	677.3	659.3	650.6	646.7	644.4	627.1	610.7	605.2	611.4
70°	587.1	587.9	587.9	571.5	565.2	558.9	556.6	543.2	529.9	526.0	531.5
72.5°	494.6	500.1	497.8	484.5	479.7	471.9	470.3	461.7	451.5	446.0	451.5
75°	404.5	412.3	410.0	398.2	392.7	384.9	385.7	381.0	370.0	366.1	371.6
77.5°	317.5	322.2	323.0	316.7	308.1	302.6	304.9	304.2	296.3	286.9	294.0
80°	237.5	243.0	243.8	238.3	231.3	226.5	229.7	229.7	223.4	215.6	221.8
82.5°	165.4	169.3	169.3	166.2	163.1	158.3	159.9	160.7	156.8	148.9	154.4
85°	103.5	104.3	102.7	100.3	98.0	96.4	96.4	98.0	94.9	90.1	94.1
87.5°	38.4	39.2	38.4	40.8	38.4	37.6	38.4	40.8	37.6	37.6	38.4
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°	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9	2223.9
2.5°	2238.0	2238.8	2238.8	2238.0	2238.0	2238.0	2237.3	2238.0
5°	2273.3	2274.1	2274.1	2272.5	2273.3	2272.5	2271.7	2272.5
7.5°	2314.1	2315.6	2314.9	2315.6	2316.4	2314.9	2314.9	2314.9
10°	2351.7	2354.1	2355.6	2357.2	2358.0	2356.4	2357.2	2356.4
12.5°	2382.3	2387.0	2390.1	2391.7	2393.3	2393.3	2391.7	2390.1
15°	2401.1	2406.6	2410.5	2415.2	2418.3	2419.1	2417.6	2416.8
17.5°	2405.8	2410.5	2416.0	2420.7	2425.4	2428.5	2430.1	2429.3
20°	2392.5	2396.4	2402.7	2409.7	2416.0	2422.3	2427.0	2428.5
22.5°	2354.1	2365.0	2376.8	2385.4	2390.9	2394.0	2396.4	2401.9
25°	2196.5	2225.5	2267.8	2300.0	2294.5	2279.6	2274.1	2278.8
27.5°	2084.4	2081.3	2076.6	2101.6	2140.8	2175.3	2191.8	2199.6
30°	1984.1	1960.5	1938.6	1947.2	1987.2	2046.8	2096.9	2117.3
32.5°	1879.0	1846.9	1843.7	1849.2	1868.0	1908.0	1976.2	2014.6
35°	1768.5	1751.2	1760.6	1767.7	1774.0	1794.3	1841.4	1875.9
37.5°	1669.7	1666.6	1679.1	1687.7	1690.9	1701.1	1719.1	1714.4
40°	1582.7	1585.0	1596.0	1605.4	1611.7	1612.5	1601.5	1592.9
42.5°	1504.3	1514.5	1514.5	1526.3	1537.2	1522.3	1499.6	1505.9
45°	1424.3	1440.8	1440.0	1450.2	1460.4	1434.5	1415.7	1420.4
47.5°	1330.3	1361.6	1366.3	1377.3	1377.3	1350.7	1335.8	1330.3
50°	1234.6	1275.4	1280.9	1287.2	1284.0	1273.8	1254.2	1240.9
52.5°	1146.1	1184.5	1190.0	1187.6	1193.9	1198.6	1171.9	1155.5
55°	1059.1	1088.8	1095.9	1088.1	1102.9	1116.3	1091.2	1076.3
57.5°	972.8	995.6	1001.8	995.6	1012.0	1026.9	1010.4	1000.3
60°	885.8	906.2	910.1	904.6	924.2	937.5	929.7	923.4
62.5°	800.4	814.5	818.4	820.7	832.5	848.2	846.6	845.8
65°	714.1	729.0	730.6	737.7	745.5	765.9	762.0	762.0
67.5°	630.3	640.4	642.8	653.8	656.9	676.5	674.2	671.0
70°	543.2	553.4	556.6	567.5	572.2	587.9	588.7	586.4
72.5°	463.3	467.2	470.3	480.5	484.5	499.3	499.3	496.2
75°	381.8	381.0	384.1	394.3	398.2	410.8	410.0	406.1
77.5°	304.9	301.0	303.4	310.4	315.1	324.5	321.4	318.3
80°	232.8	226.5	227.3	234.4	237.5	243.8	240.7	238.3
82.5°	164.6	159.1	157.6	163.1	167.8	168.5	167.8	166.2
85°	100.3	95.6	96.4	98.8	101.9	101.9	103.5	103.5
87.5°	39.2	36.8	36.8	39.2	39.2	40.0	39.2	37.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)