

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: P241236

Luminaire Tested: **1800-X-80-L35-3-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241236
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-L35-3-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: 6757.6 lumens
Efficiency: N/A
Efficacy: 95.7 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

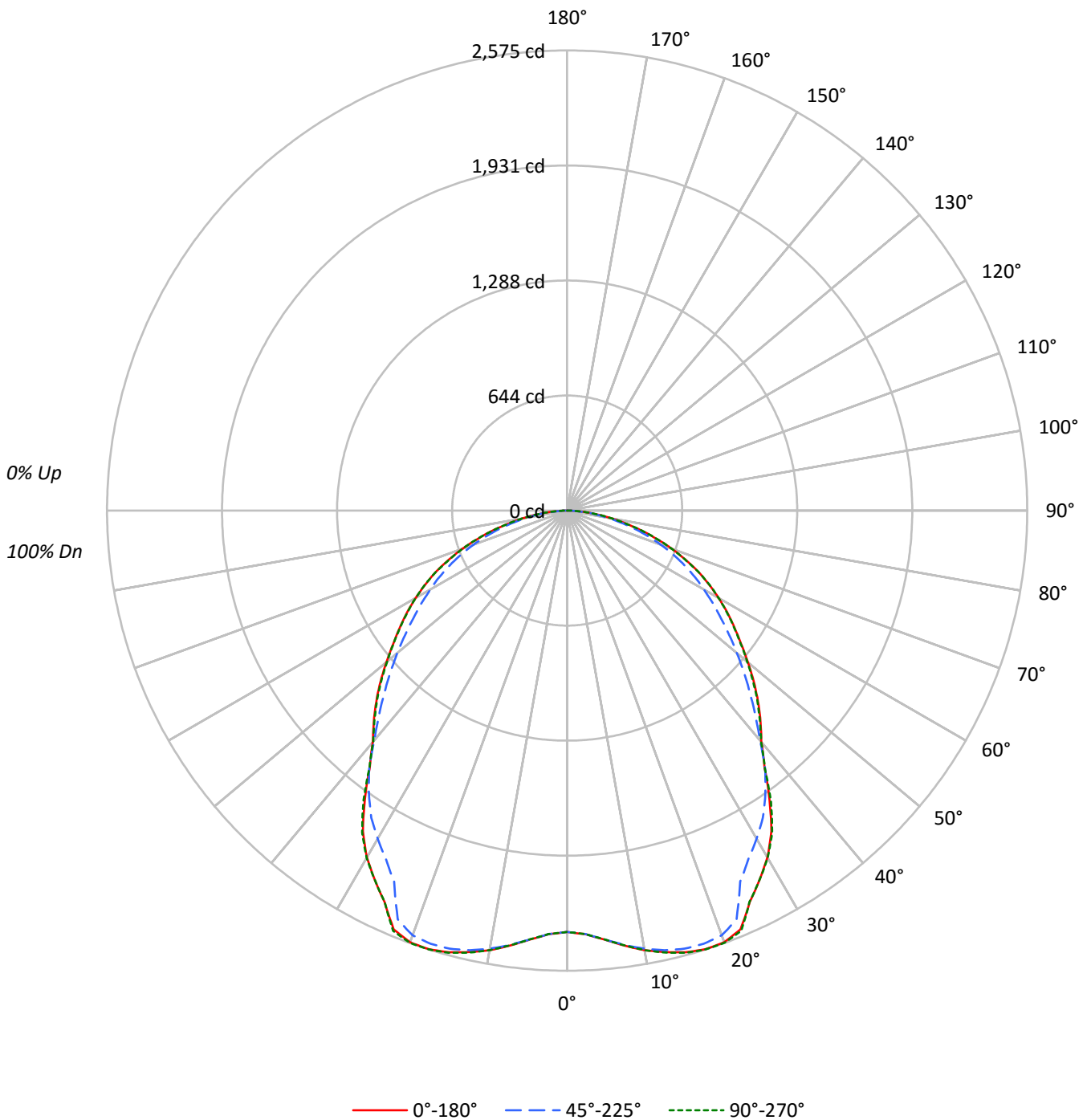
Input Watts (W): 70.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	23736	23736	23736
5°	24355	24355	24347
10°	25537	25452	25537
15°	26669	26461	26704
20°	27547	27102	27582
25°	26863	25451	26835
30°	26065	24654	26094
35°	24267	23776	24441
40°	22225	22061	22193
45°	21511	20623	21439
50°	20682	19432	20604
55°	20070	18452	20026
60°	19711	17804	19711
65°	19301	17261	19241
70°	18320	16413	18297
75°	16678	15095	16744
80°	14601	13250	14647
85°	12674	11045	12674



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.7	3.4
10°-20°	721.5	10.7
20°-30°	1091.0	16.1
30°-40°	1191.0	17.6
40°-50°	1169.1	17.3
50°-60°	1023.5	15.1
60°-70°	769.1	11.4
70°-80°	439.7	6.5
80°-90°	119.9	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°	2045.2	30.3
0°-40°	3236.2	47.9
0°-60°	5428.8	80.3
0°-90°	6757.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6757.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2357	2357	2357	2357	2357	
5°	2410	2410	2410	2410	2409	233
15°	2558	2556	2538	2558	2562	724
25°	2418	2421	2291	2421	2415	1116
35°	1974	1877	1934	1870	1988	1231
45°	1511	1541	1448	1532	1506	1165
55°	1143	1161	1051	1157	1141	1025
65°	810	779	724	778	808	797
75°	429	412	388	412	430	455
85°	110	103	96	103	110	123
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°	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3
2.5°	2373.1	2371.4	2372.2	2371.4	2373.1	2373.1	2372.2	2373.1	2372.2	2372.2	2372.2
5°	2409.6	2408.0	2408.8	2407.1	2409.6	2410.5	2409.6	2410.5	2410.5	2409.6	2409.6
7.5°	2455.3	2452.0	2452.8	2451.2	2453.7	2453.7	2452.8	2452.8	2452.0	2451.2	2452.0
10°	2497.7	2496.0	2496.0	2495.2	2496.9	2496.0	2494.4	2493.5	2490.2	2489.4	2491.0
12.5°	2530.1	2531.8	2534.3	2534.3	2533.4	2532.6	2528.4	2525.9	2521.0	2520.1	2521.8
15°	2558.4	2559.2	2561.7	2560.8	2558.4	2554.2	2550.0	2545.1	2540.9	2538.4	2540.9
17.5°	2573.3	2573.3	2572.5	2570.0	2565.0	2560.0	2554.2	2549.2	2545.1	2541.7	2545.1
20°	2570.8	2570.8	2566.7	2561.7	2553.4	2545.9	2540.1	2535.1	2530.9	2529.3	2531.8
22.5°	2535.9	2538.4	2535.1	2534.3	2527.6	2517.6	2506.0	2493.5	2480.2	2476.1	2481.9
25°	2417.9	2416.3	2417.9	2433.7	2437.9	2404.6	2362.3	2323.2	2299.9	2290.8	2303.3
27.5°	2330.7	2329.0	2308.2	2275.0	2229.3	2207.7	2211.0	2207.7	2201.9	2197.7	2203.6
30°	2241.8	2229.3	2172.8	2112.2	2068.1	2061.5	2080.6	2104.7	2119.6	2120.5	2118.0
32.5°	2127.1	2102.2	2029.1	1982.5	1964.3	1960.9	1966.7	1991.7	2025.7	2039.0	2021.6
35°	1974.2	1960.1	1915.2	1885.3	1879.5	1875.3	1865.4	1877.8	1920.2	1934.3	1918.6
37.5°	1815.5	1828.8	1809.7	1798.9	1798.1	1789.8	1775.6	1777.3	1799.7	1819.7	1797.2
40°	1690.9	1704.2	1716.6	1715.8	1712.5	1700.0	1689.2	1683.4	1681.7	1678.4	1683.4
42.5°	1602.0	1597.0	1621.1	1634.4	1626.1	1617.8	1608.6	1604.5	1573.7	1559.6	1577.9
45°	1510.6	1508.9	1525.5	1553.8	1547.1	1535.5	1533.0	1516.4	1464.1	1448.3	1468.2
47.5°	1416.7	1423.3	1438.3	1461.6	1465.7	1455.7	1448.3	1414.2	1361.0	1341.9	1360.2
50°	1320.3	1335.3	1356.0	1365.2	1369.3	1363.5	1358.5	1314.5	1260.5	1240.5	1261.3
52.5°	1228.1	1248.8	1276.3	1268.8	1265.5	1268.0	1259.6	1219.8	1167.4	1143.3	1168.3
55°	1143.3	1163.3	1187.4	1172.4	1156.6	1165.8	1158.3	1126.7	1081.0	1051.1	1079.3
57.5°	1063.6	1076.0	1095.1	1075.2	1056.9	1067.7	1060.2	1035.3	992.9	967.2	994.6
60°	978.8	988.8	999.6	980.5	961.4	967.2	963.8	941.4	906.5	884.1	904.9
62.5°	894.1	899.0	906.5	885.7	870.0	870.0	868.3	846.7	819.3	806.8	818.4
65°	810.1	809.3	811.8	791.0	779.4	777.7	774.4	754.5	732.9	724.5	733.7
67.5°	715.4	717.1	717.9	698.8	689.6	685.5	683.0	664.7	647.3	641.5	648.1
70°	622.3	623.2	623.2	605.7	599.1	592.4	589.9	575.8	561.7	557.5	563.4
72.5°	524.3	530.1	527.6	513.5	508.5	500.2	498.5	489.4	478.6	472.8	478.6
75°	428.7	437.1	434.6	422.1	416.3	408.0	408.8	403.8	392.2	388.0	393.8
77.5°	336.5	341.5	342.3	335.7	326.5	320.7	323.2	322.4	314.1	304.1	311.6
80°	251.8	257.6	258.4	252.6	245.1	240.1	243.5	243.5	236.8	228.5	235.1
82.5°	175.3	179.5	179.5	176.2	172.8	167.8	169.5	170.3	166.2	157.9	163.7
85°	109.7	110.5	108.8	106.4	103.9	102.2	102.2	103.9	100.5	95.6	99.7
87.5°	40.7	41.5	40.7	43.2	40.7	39.9	40.7	43.2	39.9	39.9	40.7
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°	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3	2357.3
2.5°	2372.2	2373.1	2373.1	2372.2	2372.2	2372.2	2371.4	2372.2
5°	2409.6	2410.5	2410.5	2408.8	2409.6	2408.8	2408.0	2408.8
7.5°	2452.8	2454.5	2453.7	2454.5	2455.3	2453.7	2453.7	2453.7
10°	2492.7	2495.2	2496.9	2498.5	2499.4	2497.7	2498.5	2497.7
12.5°	2525.1	2530.1	2533.4	2535.1	2536.7	2536.7	2535.1	2533.4
15°	2545.1	2550.9	2555.0	2560.0	2563.3	2564.2	2562.5	2561.7
17.5°	2550.0	2555.0	2560.8	2565.8	2570.8	2574.1	2575.8	2575.0
20°	2535.9	2540.1	2546.7	2554.2	2560.8	2567.5	2572.5	2574.1
22.5°	2495.2	2506.8	2519.3	2528.4	2534.3	2537.6	2540.1	2545.9
25°	2328.2	2358.9	2403.8	2437.9	2432.1	2416.3	2410.5	2415.4
27.5°	2209.4	2206.0	2201.1	2227.7	2269.2	2305.8	2323.2	2331.5
30°	2103.0	2078.1	2054.8	2064.0	2106.3	2169.5	2222.7	2244.3
32.5°	1991.7	1957.6	1954.3	1960.1	1980.0	2022.4	2094.7	2135.4
35°	1874.5	1856.2	1866.2	1873.7	1880.3	1901.9	1951.8	1988.4
37.5°	1769.8	1766.5	1779.8	1788.9	1792.3	1803.1	1822.2	1817.2
40°	1677.6	1680.1	1691.7	1701.7	1708.3	1709.2	1697.5	1688.4
42.5°	1594.5	1605.3	1605.3	1617.8	1629.4	1613.6	1589.5	1596.2
45°	1509.8	1527.2	1526.4	1537.2	1548.0	1520.6	1500.6	1505.6
47.5°	1410.0	1443.3	1448.3	1459.9	1459.9	1431.6	1415.9	1410.0
50°	1308.7	1351.9	1357.7	1364.3	1361.0	1350.2	1329.4	1315.3
52.5°	1214.8	1255.5	1261.3	1258.8	1265.5	1270.5	1242.2	1224.8
55°	1122.6	1154.1	1161.6	1153.3	1169.1	1183.2	1156.6	1140.8
57.5°	1031.2	1055.2	1061.9	1055.2	1072.7	1088.5	1071.0	1060.2
60°	938.9	960.5	964.7	958.9	979.6	993.8	985.5	978.8
62.5°	848.4	863.3	867.5	870.0	882.4	899.0	897.4	896.5
65°	757.0	772.7	774.4	781.9	790.2	811.8	807.6	807.6
67.5°	668.0	678.8	681.3	693.0	696.3	717.1	714.6	711.3
70°	575.8	586.6	589.9	601.6	606.6	623.2	624.0	621.5
72.5°	491.1	495.2	498.5	509.3	513.5	529.3	529.3	526.0
75°	404.6	403.8	407.1	417.9	422.1	435.4	434.6	430.4
77.5°	323.2	319.1	321.6	329.0	334.0	344.0	340.7	337.3
80°	246.8	240.1	241.0	248.4	251.8	258.4	255.1	252.6
82.5°	174.5	168.7	167.0	172.8	177.8	178.6	177.8	176.2
85°	106.4	101.4	102.2	104.7	108.0	108.0	109.7	109.7
87.5°	41.5	39.1	39.1	41.5	41.5	42.4	41.5	39.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)