

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: P241240

Luminaire Tested: **1800-X-80-L27-4-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241240
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-L27-4-M-UNV-STD-X-X
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT
MEDIUM DISTRIBUTION.
Light Source: (168) 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6770.4 lumens
Efficiency: N/A
Efficacy: 81.7 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

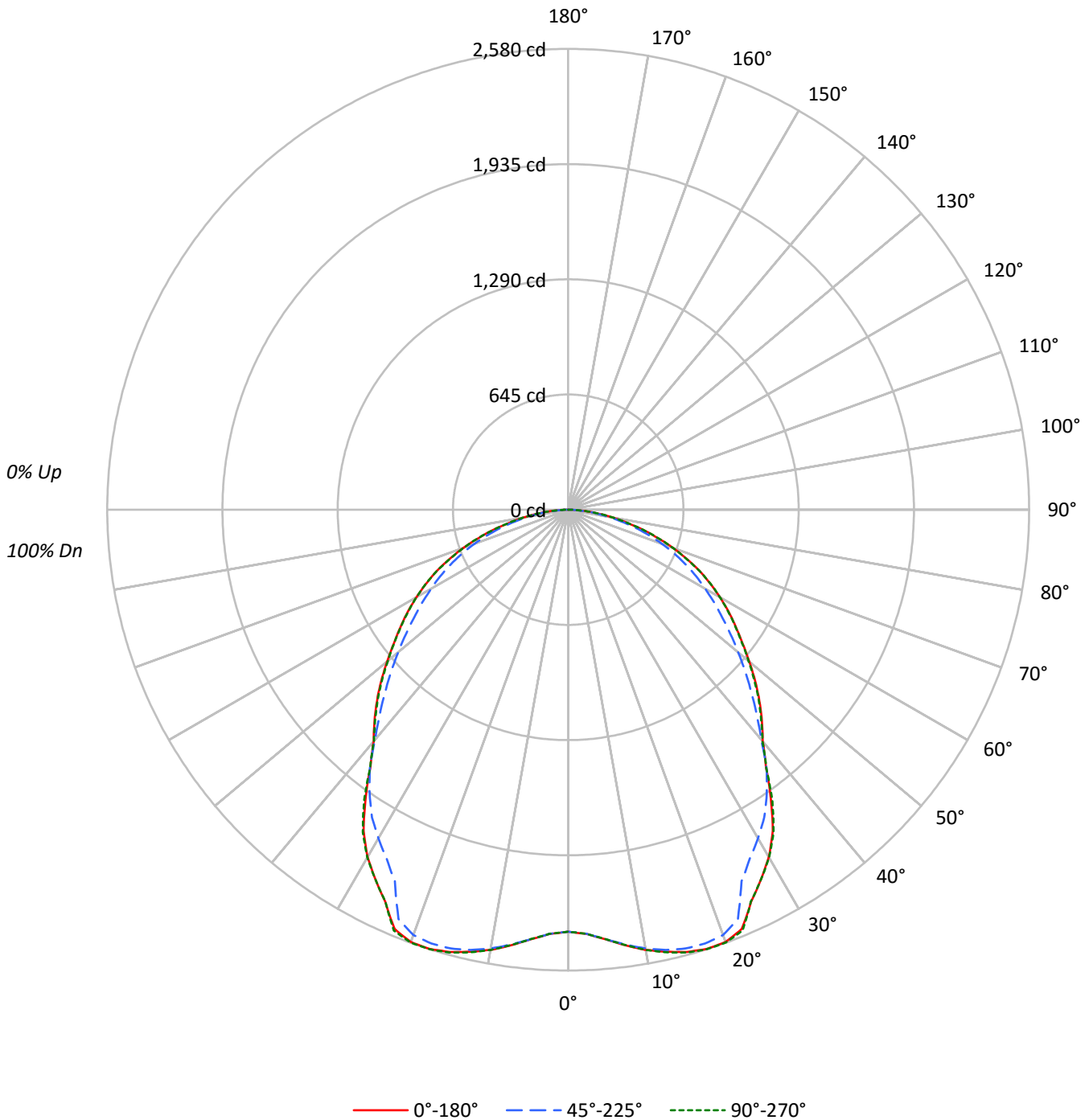
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P241240

CATALOG NUMBER: 1800-X-80-L27-4-M-UNV-STD-X-X

Luminous Intensity Polar Plot





TEST NUMBER: P241240

CATALOG NUMBER: 1800-X-80-L27-4-M-UNV-STD-X-X

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°	23781	23781	23781
5°	24401	24401	24393
10°	25585	25501	25585
15°	26719	26511	26754
20°	27599	27153	27635
25°	26914	25499	26886
30°	26114	24701	26143
35°	24314	23822	24487
40°	22268	22103	22235
45°	21552	20662	21481
50°	20721	19470	20643
55°	20109	18487	20065
60°	19749	17838	19749
65°	19339	17295	19279
70°	18356	16445	18332
75°	16713	15126	16775
80°	14624	13273	14676
85°	12697	11056	12697



TEST NUMBER: P241240

CATALOG NUMBER: 1800-X-80-L27-4-M-UNV-STD-X-X

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.2	3.4
10°-20°	722.8	10.7
20°-30°	1093.1	16.1
30°-40°	1193.2	17.6
40°-50°	1171.4	17.3
50°-60°	1025.5	15.1
60°-70°	770.6	11.4
70°-80°	440.5	6.5
80°-90°	120.1	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°	2049.1	30.3
0°-40°	3242.4	47.9
0°-60°	5439.2	80.3
0°-90°	6770.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6770.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2362	2362	2362	2362	2362	
5°	2414	2415	2414	2414	2413	233
15°	2563	2561	2543	2562	2566	725
25°	2422	2426	2295	2425	2420	1119
35°	1978	1881	1938	1874	1992	1233
45°	1514	1544	1451	1535	1508	1167
55°	1146	1163	1053	1160	1143	1027
65°	812	780	726	780	809	798
75°	430	413	389	413	431	456
85°	110	103	96	104	110	123
90°	0	0	0	0	0	



TEST NUMBER: P241240

CATALOG NUMBER: 1800-X-80-L27-4-M-UNV-STD-X-X

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8
2.5°	2377.6	2375.9	2376.7	2375.9	2377.6	2377.6	2376.7	2377.6	2376.7	2376.7	2376.7
5°	2414.2	2412.5	2413.4	2411.7	2414.2	2415.0	2414.2	2415.0	2415.0	2414.2	2414.2
7.5°	2460.0	2456.7	2457.5	2455.8	2458.3	2458.3	2457.5	2457.5	2456.7	2455.8	2456.7
10°	2502.4	2500.8	2500.8	2499.9	2501.6	2500.8	2499.1	2498.3	2495.0	2494.1	2495.8
12.5°	2534.9	2536.6	2539.1	2539.1	2538.2	2537.4	2533.2	2530.7	2525.8	2524.9	2526.6
15°	2563.2	2564.0	2566.5	2565.7	2563.2	2559.1	2554.9	2549.9	2545.7	2543.2	2545.7
17.5°	2578.2	2578.2	2577.4	2574.9	2569.9	2564.9	2559.1	2554.1	2549.9	2546.6	2549.9
20°	2575.7	2575.7	2571.5	2566.5	2558.2	2550.7	2544.9	2539.9	2535.7	2534.1	2536.6
22.5°	2540.7	2543.2	2539.9	2539.1	2532.4	2522.4	2510.8	2498.3	2485.0	2480.8	2486.6
25°	2422.5	2420.9	2422.5	2438.3	2442.5	2409.2	2366.7	2327.6	2304.3	2295.2	2307.6
27.5°	2335.1	2333.4	2312.6	2279.3	2233.6	2211.9	2215.2	2211.9	2206.1	2201.9	2207.7
30°	2246.0	2233.6	2176.9	2116.2	2072.0	2065.4	2084.5	2108.7	2123.7	2124.5	2122.0
32.5°	2131.2	2106.2	2032.9	1986.3	1968.0	1964.7	1970.5	1995.5	2029.6	2042.9	2025.4
35°	1978.0	1963.8	1918.9	1888.9	1883.1	1878.9	1868.9	1881.4	1923.9	1938.0	1922.2
37.5°	1819.0	1832.3	1813.1	1802.3	1801.5	1793.2	1779.0	1780.7	1803.2	1823.1	1800.7
40°	1694.1	1707.4	1719.9	1719.1	1715.7	1703.3	1692.4	1686.6	1684.9	1681.6	1686.6
42.5°	1605.0	1600.0	1624.2	1637.5	1629.2	1620.8	1611.7	1607.5	1576.7	1562.6	1580.9
45°	1513.5	1511.8	1528.4	1556.7	1550.1	1538.4	1535.9	1519.3	1466.8	1451.0	1471.0
47.5°	1419.4	1426.0	1441.0	1464.3	1468.5	1458.5	1451.0	1416.9	1363.6	1344.5	1362.8
50°	1322.8	1337.8	1358.6	1367.8	1371.9	1366.1	1361.1	1317.0	1262.9	1242.9	1263.7
52.5°	1230.4	1251.2	1278.7	1271.2	1267.9	1270.4	1262.0	1222.1	1169.6	1145.5	1170.5
55°	1145.5	1165.5	1189.6	1174.6	1158.8	1168.0	1160.5	1128.8	1083.1	1053.1	1081.4
57.5°	1065.6	1078.1	1097.2	1077.2	1058.9	1069.7	1062.2	1037.3	994.8	969.0	996.5
60°	980.7	990.7	1001.5	982.3	963.2	969.0	965.7	943.2	908.2	885.8	906.6
62.5°	895.8	900.7	908.2	887.4	871.6	871.6	869.9	848.3	820.8	808.3	820.0
65°	811.7	810.8	813.3	792.5	780.9	779.2	775.9	755.9	734.2	725.9	735.1
67.5°	716.8	718.4	719.3	700.1	691.0	686.8	684.3	666.0	648.5	642.7	649.3
70°	623.5	624.4	624.4	606.9	600.2	593.6	591.1	576.9	562.8	558.6	564.4
72.5°	525.3	531.1	528.6	514.5	509.5	501.2	499.5	490.3	479.5	473.7	479.5
75°	429.6	437.9	435.4	422.9	417.1	408.7	409.6	404.6	392.9	388.8	394.6
77.5°	337.2	342.2	343.0	336.3	327.2	321.3	323.8	323.0	314.7	304.7	312.2
80°	252.2	258.1	258.9	253.1	245.6	240.6	243.9	243.9	237.3	228.9	235.6
82.5°	175.7	179.8	179.8	176.5	173.2	168.2	169.8	170.7	166.5	158.2	164.0
85°	109.9	110.7	109.1	106.6	104.1	102.4	102.4	104.1	100.7	95.7	99.9
87.5°	40.8	41.6	40.8	43.3	40.8	40.0	40.8	43.3	40.0	40.0	40.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P241240

CATALOG NUMBER: 1800-X-80-L27-4-M-UNV-STD-X-X

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8	2361.8
2.5°	2376.7	2377.6	2377.6	2376.7	2376.7	2376.7	2375.9	2376.7
5°	2414.2	2415.0	2415.0	2413.4	2414.2	2413.4	2412.5	2413.4
7.5°	2457.5	2459.2	2458.3	2459.2	2460.0	2458.3	2458.3	2458.3
10°	2497.4	2499.9	2501.6	2503.3	2504.1	2502.4	2503.3	2502.4
12.5°	2529.9	2534.9	2538.2	2539.9	2541.6	2541.6	2539.9	2538.2
15°	2549.9	2555.7	2559.9	2564.9	2568.2	2569.0	2567.4	2566.5
17.5°	2554.9	2559.9	2565.7	2570.7	2575.7	2579.0	2580.7	2579.9
20°	2540.7	2544.9	2551.6	2559.1	2565.7	2572.4	2577.4	2579.0
22.5°	2499.9	2511.6	2524.1	2533.2	2539.1	2542.4	2544.9	2550.7
25°	2332.6	2363.4	2408.4	2442.5	2436.7	2420.9	2415.0	2420.0
27.5°	2213.6	2210.2	2205.2	2231.9	2273.5	2310.1	2327.6	2335.9
30°	2107.0	2082.0	2058.7	2067.9	2110.3	2173.6	2226.9	2248.5
32.5°	1995.5	1961.3	1958.0	1963.8	1983.8	2026.3	2098.7	2139.5
35°	1878.1	1859.8	1869.8	1877.2	1883.9	1905.6	1955.5	1992.1
37.5°	1773.2	1769.9	1783.2	1792.3	1795.7	1806.5	1825.6	1820.6
40°	1680.8	1683.3	1694.9	1704.9	1711.6	1712.4	1700.8	1691.6
42.5°	1597.5	1608.4	1608.4	1620.8	1632.5	1616.7	1592.5	1599.2
45°	1512.6	1530.1	1529.3	1540.1	1550.9	1523.4	1503.5	1508.5
47.5°	1412.7	1446.0	1451.0	1462.7	1462.7	1434.4	1418.6	1412.7
50°	1311.2	1354.4	1360.3	1366.9	1363.6	1352.8	1332.0	1317.8
52.5°	1217.1	1257.9	1263.7	1261.2	1267.9	1272.9	1244.6	1227.1
55°	1124.7	1156.3	1163.8	1155.5	1171.3	1185.5	1158.8	1143.0
57.5°	1033.1	1057.3	1063.9	1057.3	1074.7	1090.6	1073.1	1062.2
60°	940.7	962.4	966.5	960.7	981.5	995.6	987.3	980.7
62.5°	850.0	864.9	869.1	871.6	884.1	900.7	899.1	898.2
65°	758.4	774.2	775.9	783.4	791.7	813.3	809.2	809.2
67.5°	669.3	680.1	682.6	694.3	697.6	718.4	715.9	712.6
70°	576.9	587.7	591.1	602.7	607.7	624.4	625.2	622.7
72.5°	492.0	496.2	499.5	510.3	514.5	530.3	530.3	527.0
75°	405.4	404.6	407.9	418.7	422.9	436.2	435.4	431.2
77.5°	323.8	319.7	322.2	329.7	334.7	344.6	341.3	338.0
80°	247.2	240.6	241.4	248.9	252.2	258.9	255.6	253.1
82.5°	174.8	169.0	167.3	173.2	178.2	179.0	178.2	176.5
85°	106.6	101.6	102.4	104.9	108.2	108.2	109.9	109.9
87.5°	41.6	39.1	39.1	41.6	41.6	42.5	41.6	40.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)