

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: P241232

Luminaire Tested: **1800-X-80-L27-3-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241232
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-L27-3-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

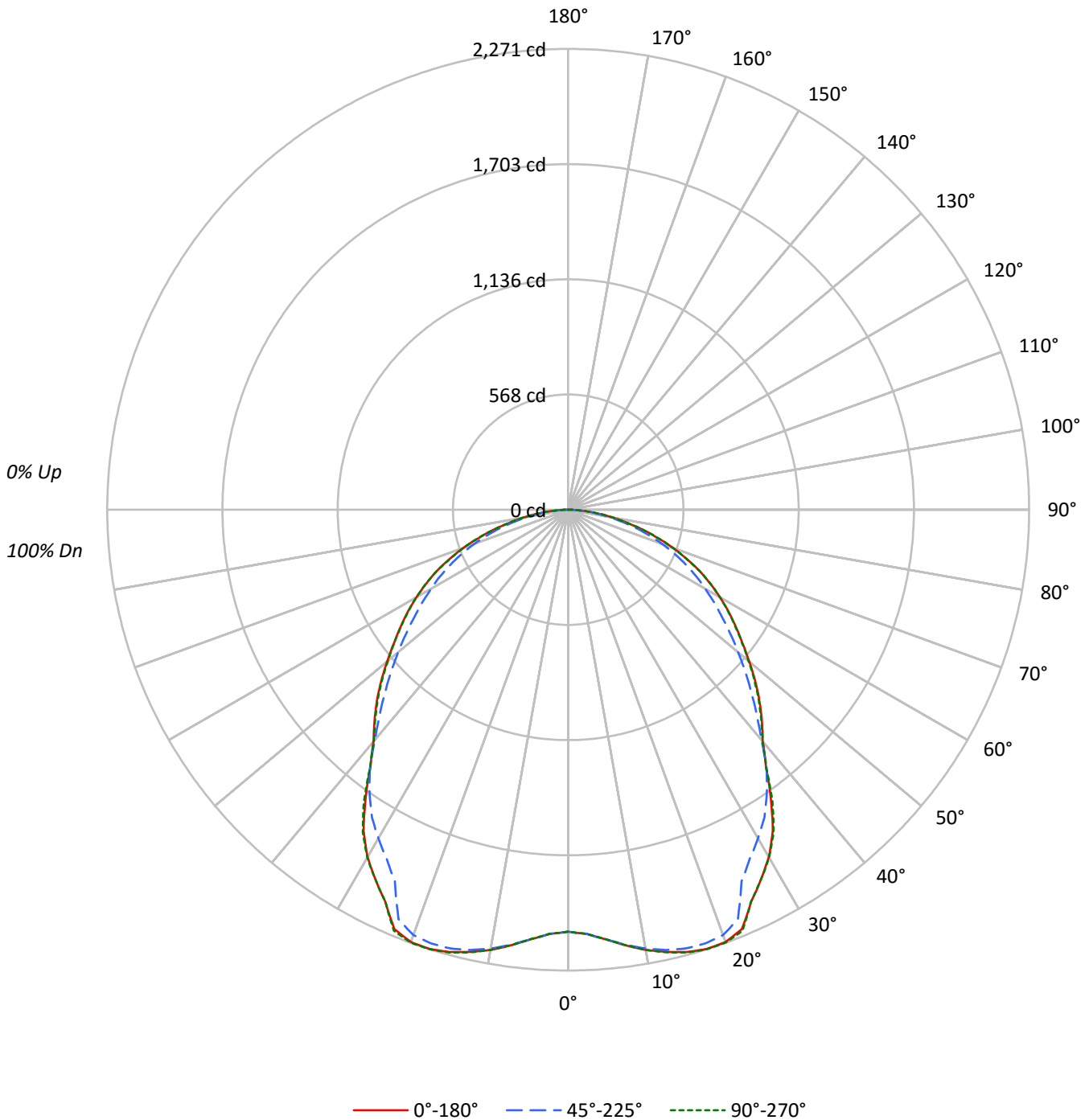
Lumens per Lamp: N/A
Luminaire Lumens: 5960.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.33
Luminous Opening: Circular (Dia: 1.17' x H: 0')
CIE Type: Direct

Input Watts (W): 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



TEST NUMBER: P241232
CATALOG NUMBER: 1800-X-80-L27-3-M-UNV-STD-X-X

Luminous Intensity Polar Plot





TEST NUMBER: P241232

CATALOG NUMBER: 1800-X-80-L27-3-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	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°	20934	20934	20934
5°	21480	21480	21473
10°	22523	22449	22523
15°	23521	23338	23551
20°	24296	23903	24327
25°	23693	22446	23669
30°	22988	21744	23014
35°	21403	20971	21556
40°	19602	19457	19573
45°	18972	18188	18909
50°	18241	17139	18172
55°	17702	16273	17664
60°	17385	15702	17385
65°	17023	15224	16971
70°	16160	14476	16139
75°	14709	13313	14768
80°	12878	11684	12919
85°	11172	9739	11172



TEST NUMBER: P241232

CATALOG NUMBER: 1800-X-80-L27-3-M-UNV-STD-X-X

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	3.4
10°-20°	636.3	10.7
20°-30°	962.3	16.1
30°-40°	1050.4	17.6
40°-50°	1031.2	17.3
50°-60°	902.7	15.1
60°-70°	678.3	11.4
70°-80°	387.8	6.5
80°-90°	105.8	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°	1803.8	30.3
0°-40°	2854.3	47.9
0°-60°	4788.1	80.3
0°-90°	5960.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5960.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2079	2079	2079	2079	2079	
5°	2125	2126	2125	2125	2124	205
15°	2256	2255	2239	2256	2259	638
25°	2133	2136	2020	2135	2130	985
35°	1741	1656	1706	1649	1754	1086
45°	1332	1359	1277	1351	1328	1027
55°	1008	1024	927	1021	1006	904
65°	714	687	639	686	712	703
75°	378	364	342	364	380	401
85°	97	91	84	91	97	108
90°	0	0	0	0	0	



TEST NUMBER: P241232

CATALOG NUMBER: 1800-X-80-L27-3-M-UNV-STD-X-X

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1
2.5°	2093.0	2091.5	2092.3	2091.5	2093.0	2093.0	2092.3	2093.0	2092.3	2092.3	2092.3
5°	2125.2	2123.8	2124.5	2123.0	2125.2	2126.0	2125.2	2126.0	2126.0	2125.2	2125.2
7.5°	2165.5	2162.6	2163.3	2161.9	2164.1	2164.1	2163.3	2163.3	2162.6	2161.9	2162.6
10°	2202.9	2201.5	2201.5	2200.7	2202.2	2201.5	2200.0	2199.3	2196.3	2195.6	2197.1
12.5°	2231.5	2233.0	2235.2	2235.2	2234.4	2233.7	2230.0	2227.8	2223.4	2222.7	2224.2
15°	2256.4	2257.1	2259.3	2258.6	2256.4	2252.7	2249.1	2244.7	2241.0	2238.8	2241.0
17.5°	2269.6	2269.6	2268.9	2266.7	2262.3	2257.9	2252.7	2248.4	2244.7	2241.8	2244.7
20°	2267.4	2267.4	2263.7	2259.3	2252.0	2245.4	2240.3	2235.9	2232.2	2230.8	2233.0
22.5°	2236.6	2238.8	2235.9	2235.2	2229.3	2220.5	2210.2	2199.3	2187.5	2183.9	2189.0
25°	2132.6	2131.1	2132.6	2146.5	2150.2	2120.8	2083.5	2049.0	2028.5	2020.4	2031.4
27.5°	2055.6	2054.1	2035.8	2006.5	1966.2	1947.2	1950.1	1947.2	1942.0	1938.4	1943.5
30°	1977.2	1966.2	1916.4	1862.9	1824.0	1818.2	1835.0	1856.3	1869.5	1870.2	1868.0
32.5°	1876.1	1854.1	1789.6	1748.6	1732.4	1729.5	1734.6	1756.6	1786.7	1798.4	1783.0
35°	1741.2	1728.8	1689.2	1662.8	1657.7	1654.0	1645.2	1656.2	1693.6	1706.1	1692.1
37.5°	1601.3	1613.0	1596.1	1586.6	1585.9	1578.5	1566.1	1567.5	1587.3	1604.9	1585.1
40°	1491.3	1503.1	1514.0	1513.3	1510.4	1499.4	1489.9	1484.7	1483.3	1480.3	1484.7
42.5°	1412.9	1408.5	1429.8	1441.5	1434.2	1426.8	1418.8	1415.1	1388.0	1375.5	1391.7
45°	1332.3	1330.8	1345.5	1370.4	1364.5	1354.3	1352.1	1337.4	1291.3	1277.3	1294.9
47.5°	1249.5	1255.4	1268.5	1289.1	1292.7	1283.9	1277.3	1247.3	1200.4	1183.5	1199.7
50°	1164.5	1177.7	1196.0	1204.1	1207.7	1202.6	1198.2	1159.4	1111.7	1094.1	1112.5
52.5°	1083.1	1101.5	1125.6	1119.0	1116.1	1118.3	1111.0	1075.8	1029.6	1008.4	1030.4
55°	1008.4	1026.0	1047.2	1034.0	1020.1	1028.2	1021.6	993.7	953.4	927.0	952.0
57.5°	938.0	949.0	965.9	948.3	932.2	941.7	935.1	913.1	875.7	853.0	877.2
60°	863.3	872.1	881.6	864.8	847.9	853.0	850.1	830.3	799.5	779.7	798.1
62.5°	788.5	792.9	799.5	781.2	767.3	767.3	765.8	746.8	722.6	711.6	721.8
65°	714.5	713.8	716.0	697.7	687.4	685.9	683.0	665.4	646.4	639.0	647.1
67.5°	631.0	632.4	633.2	616.3	608.3	604.6	602.4	586.3	570.9	565.8	571.6
70°	548.9	549.6	549.6	534.2	528.4	522.5	520.3	507.9	495.4	491.7	496.9
72.5°	462.4	467.6	465.4	452.9	448.5	441.2	439.7	431.6	422.1	417.0	422.1
75°	378.1	385.5	383.3	372.3	367.2	359.8	360.6	356.2	345.9	342.2	347.4
77.5°	296.8	301.2	301.9	296.1	288.0	282.9	285.1	284.3	277.0	268.2	274.8
80°	222.1	227.2	227.9	222.8	216.2	211.8	214.7	214.7	208.9	201.5	207.4
82.5°	154.6	158.3	158.3	155.4	152.4	148.0	149.5	150.2	146.6	139.2	144.4
85°	96.7	97.5	96.0	93.8	91.6	90.1	90.1	91.6	88.7	84.3	87.9
87.5°	35.9	36.6	35.9	38.1	35.9	35.2	35.9	38.1	35.2	35.2	35.9
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: P241232

CATALOG NUMBER: 1800-X-80-L27-3-M-UNV-STD-X-X

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1	2079.1
2.5°	2092.3	2093.0	2093.0	2092.3	2092.3	2092.3	2091.5	2092.3
5°	2125.2	2126.0	2126.0	2124.5	2125.2	2124.5	2123.8	2124.5
7.5°	2163.3	2164.8	2164.1	2164.8	2165.5	2164.1	2164.1	2164.1
10°	2198.5	2200.7	2202.2	2203.6	2204.4	2202.9	2203.6	2202.9
12.5°	2227.1	2231.5	2234.4	2235.9	2237.4	2237.4	2235.9	2234.4
15°	2244.7	2249.8	2253.5	2257.9	2260.8	2261.5	2260.1	2259.3
17.5°	2249.1	2253.5	2258.6	2263.0	2267.4	2270.3	2271.8	2271.1
20°	2236.6	2240.3	2246.2	2252.7	2258.6	2264.5	2268.9	2270.3
22.5°	2200.7	2211.0	2222.0	2230.0	2235.2	2238.1	2240.3	2245.4
25°	2053.4	2080.5	2120.1	2150.2	2145.0	2131.1	2126.0	2130.4
27.5°	1948.6	1945.7	1941.3	1964.7	2001.4	2033.6	2049.0	2056.3
30°	1854.8	1832.8	1812.3	1820.4	1857.7	1913.4	1960.3	1979.4
32.5°	1756.6	1726.6	1723.6	1728.8	1746.4	1783.7	1847.5	1883.4
35°	1653.3	1637.2	1646.0	1652.6	1658.4	1677.5	1721.4	1753.7
37.5°	1560.9	1558.0	1569.7	1577.8	1580.7	1590.3	1607.1	1602.7
40°	1479.6	1481.8	1492.1	1500.9	1506.7	1507.5	1497.2	1489.1
42.5°	1406.3	1415.8	1415.8	1426.8	1437.1	1423.2	1401.9	1407.8
45°	1331.6	1347.0	1346.2	1355.8	1365.3	1341.1	1323.5	1327.9
47.5°	1243.6	1272.9	1277.3	1287.6	1287.6	1262.7	1248.8	1243.6
50°	1154.2	1192.3	1197.5	1203.3	1200.4	1190.9	1172.5	1160.1
52.5°	1071.4	1107.3	1112.5	1110.3	1116.1	1120.5	1095.6	1080.2
55°	990.1	1017.9	1024.5	1017.2	1031.1	1043.6	1020.1	1006.2
57.5°	909.5	930.7	936.6	930.7	946.1	960.0	944.6	935.1
60°	828.1	847.2	850.8	845.7	864.0	876.5	869.1	863.3
62.5°	748.2	761.4	765.1	767.3	778.3	792.9	791.5	790.7
65°	667.6	681.5	683.0	689.6	696.9	716.0	712.3	712.3
67.5°	589.2	598.7	600.9	611.2	614.1	632.4	630.2	627.3
70°	507.9	517.4	520.3	530.6	535.0	549.6	550.4	548.2
72.5°	433.1	436.8	439.7	449.2	452.9	466.8	466.8	463.9
75°	356.9	356.2	359.1	368.6	372.3	384.0	383.3	379.6
77.5°	285.1	281.4	283.6	290.2	294.6	303.4	300.5	297.5
80°	217.7	211.8	212.5	219.1	222.1	227.9	225.0	222.8
82.5°	153.9	148.8	147.3	152.4	156.8	157.6	156.8	155.4
85°	93.8	89.4	90.1	92.3	95.3	95.3	96.7	96.7
87.5°	36.6	34.4	34.4	36.6	36.6	37.4	36.6	35.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)