

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: P241228

Luminaire Tested: **1800-X-80-L35-2-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241228
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-L35-2-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: 5637.8 lumens
Efficiency: N/A
Efficacy: 104.6 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

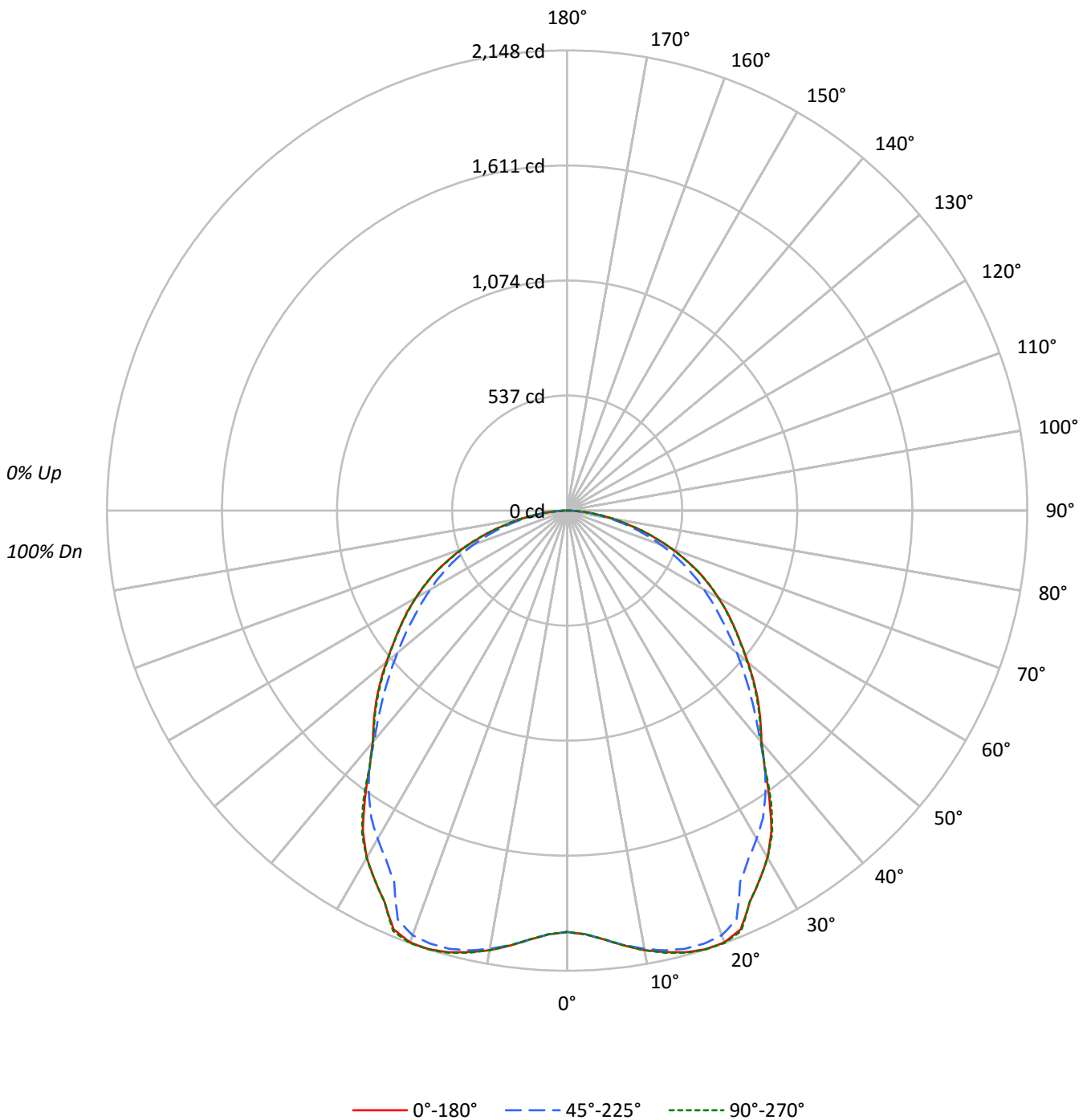
Input Watts (W): 53.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	19802	19802	19802
5°	20319	20319	20312
10°	21305	21235	21305
15°	22249	22076	22279
20°	22982	22610	23012
25°	22411	21233	22389
30°	21745	20569	21770
35°	20246	19837	20391
40°	18542	18406	18515
45°	17946	17206	17887
50°	17255	16213	17190
55°	16745	15394	16709
60°	16445	14854	16445
65°	16104	14402	16053
70°	15285	13692	15265
75°	13916	12593	13970
80°	12177	11052	12217
85°	10571	9208	10571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.2	3.4
10°-20°	601.9	10.7
20°-30°	910.2	16.1
30°-40°	993.6	17.6
40°-50°	975.4	17.3
50°-60°	853.9	15.1
60°-70°	641.7	11.4
70°-80°	366.8	6.5
80°-90°	100.0	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°	1706.3	30.3
0°-40°	2699.9	47.9
0°-60°	4529.2	80.3
0°-90°	5637.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5637.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1967	1967	1967	1967	1967	
5°	2010	2011	2010	2010	2010	194
15°	2134	2133	2118	2134	2137	604
25°	2017	2020	1911	2020	2015	931
35°	1647	1566	1614	1560	1659	1027
45°	1260	1286	1208	1278	1256	972
55°	954	969	877	966	952	855
65°	676	650	604	649	674	665
75°	358	344	324	344	359	380
85°	92	86	80	86	92	102
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°	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6
2.5°	1979.8	1978.4	1979.1	1978.4	1979.8	1979.8	1979.1	1979.8	1979.1	1979.1	1979.1
5°	2010.3	2008.9	2009.6	2008.2	2010.3	2011.0	2010.3	2011.0	2011.0	2010.3	2010.3
7.5°	2048.4	2045.7	2046.4	2045.0	2047.1	2047.1	2046.4	2046.4	2045.7	2045.0	2045.7
10°	2083.8	2082.4	2082.4	2081.7	2083.1	2082.4	2081.0	2080.3	2077.6	2076.9	2078.2
12.5°	2110.8	2112.2	2114.3	2114.3	2113.6	2112.9	2109.4	2107.4	2103.2	2102.5	2103.9
15°	2134.4	2135.1	2137.2	2136.5	2134.4	2130.9	2127.5	2123.3	2119.8	2117.8	2119.8
17.5°	2146.9	2146.9	2146.2	2144.1	2139.9	2135.8	2130.9	2126.8	2123.3	2120.5	2123.3
20°	2144.8	2144.8	2141.3	2137.2	2130.2	2124.0	2119.1	2115.0	2111.5	2110.1	2112.2
22.5°	2115.7	2117.8	2115.0	2114.3	2108.7	2100.4	2090.7	2080.3	2069.2	2065.8	2070.6
25°	2017.2	2015.9	2017.2	2030.4	2033.9	2006.2	1970.8	1938.2	1918.8	1911.2	1921.6
27.5°	1944.5	1943.1	1925.7	1898.0	1859.9	1841.9	1844.6	1841.9	1837.0	1833.5	1838.4
30°	1870.3	1859.9	1812.7	1762.1	1725.4	1719.9	1735.8	1755.9	1768.4	1769.1	1767.0
32.5°	1774.6	1753.8	1692.8	1654.0	1638.8	1636.0	1640.8	1661.6	1690.0	1701.1	1686.6
35°	1647.1	1635.3	1597.9	1572.9	1568.0	1564.6	1556.3	1566.7	1602.0	1613.8	1600.6
37.5°	1514.7	1525.8	1509.8	1500.8	1500.1	1493.2	1481.4	1482.8	1501.5	1518.1	1499.4
40°	1410.7	1421.8	1432.2	1431.5	1428.7	1418.3	1409.3	1404.4	1403.1	1400.3	1404.4
42.5°	1336.5	1332.4	1352.5	1363.5	1356.6	1349.7	1342.1	1338.6	1312.9	1301.2	1316.4
45°	1260.3	1258.9	1272.7	1296.3	1290.8	1281.1	1279.0	1265.1	1221.4	1208.3	1224.9
47.5°	1181.9	1187.5	1199.9	1219.4	1222.8	1214.5	1208.3	1179.8	1135.5	1119.5	1134.8
50°	1101.5	1114.0	1131.3	1138.9	1142.4	1137.6	1133.4	1096.7	1051.6	1035.0	1052.3
52.5°	1024.6	1041.9	1064.8	1058.5	1055.8	1057.8	1050.9	1017.6	974.0	953.9	974.7
55°	953.9	970.5	990.6	978.1	964.9	972.6	966.3	940.0	901.9	876.9	900.5
57.5°	887.3	897.7	913.7	897.0	881.8	890.8	884.5	863.7	828.4	806.9	829.8
60°	816.6	824.9	833.9	818.0	802.0	806.9	804.1	785.4	756.3	737.6	754.9
62.5°	745.9	750.1	756.3	739.0	725.8	725.8	724.4	706.4	683.5	673.1	682.8
65°	675.9	675.2	677.3	659.9	650.2	648.8	646.1	629.4	611.4	604.5	612.1
67.5°	596.9	598.2	598.9	583.0	575.4	571.9	569.8	554.6	540.0	535.2	540.7
70°	519.2	519.9	519.9	505.4	499.8	494.3	492.2	480.4	468.6	465.1	470.0
72.5°	437.4	442.3	440.2	428.4	424.2	417.3	415.9	408.3	399.3	394.4	399.3
75°	357.7	364.6	362.5	352.2	347.3	340.4	341.1	336.9	327.2	323.7	328.6
77.5°	280.8	284.9	285.6	280.1	272.4	267.6	269.7	269.0	262.0	253.7	260.0
80°	210.0	214.9	215.6	210.7	204.5	200.3	203.1	203.1	197.6	190.6	196.2
82.5°	146.3	149.7	149.7	147.0	144.2	140.0	141.4	142.1	138.6	131.7	136.6
85°	91.5	92.2	90.8	88.7	86.7	85.3	85.3	86.7	83.9	79.7	83.2
87.5°	34.0	34.7	34.0	36.0	34.0	33.3	34.0	36.0	33.3	33.3	34.0
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°	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6	1966.6
2.5°	1979.1	1979.8	1979.8	1979.1	1979.1	1979.1	1978.4	1979.1
5°	2010.3	2011.0	2011.0	2009.6	2010.3	2009.6	2008.9	2009.6
7.5°	2046.4	2047.7	2047.1	2047.7	2048.4	2047.1	2047.1	2047.1
10°	2079.6	2081.7	2083.1	2084.5	2085.2	2083.8	2084.5	2083.8
12.5°	2106.7	2110.8	2113.6	2115.0	2116.4	2116.4	2115.0	2113.6
15°	2123.3	2128.2	2131.6	2135.8	2138.6	2139.2	2137.9	2137.2
17.5°	2127.5	2131.6	2136.5	2140.6	2144.8	2147.6	2149.0	2148.3
20°	2115.7	2119.1	2124.7	2130.9	2136.5	2142.0	2146.2	2147.6
22.5°	2081.7	2091.4	2101.8	2109.4	2114.3	2117.1	2119.1	2124.0
25°	1942.4	1968.0	2005.5	2033.9	2029.0	2015.9	2011.0	2015.2
27.5°	1843.2	1840.5	1836.3	1858.5	1893.2	1923.7	1938.2	1945.1
30°	1754.5	1733.7	1714.3	1721.9	1757.3	1810.0	1854.3	1872.4
32.5°	1661.6	1633.2	1630.4	1635.3	1651.9	1687.3	1747.6	1781.6
35°	1563.9	1548.6	1557.0	1563.2	1568.7	1586.8	1628.4	1658.9
37.5°	1476.5	1473.8	1484.9	1492.5	1495.3	1504.3	1520.2	1516.1
40°	1399.6	1401.7	1411.4	1419.7	1425.2	1425.9	1416.2	1408.6
42.5°	1330.3	1339.3	1339.3	1349.7	1359.4	1346.2	1326.1	1331.7
45°	1259.6	1274.1	1273.4	1282.4	1291.5	1268.6	1251.9	1256.1
47.5°	1176.4	1204.1	1208.3	1218.0	1218.0	1194.4	1181.2	1176.4
50°	1091.8	1127.9	1132.7	1138.3	1135.5	1126.5	1109.1	1097.4
52.5°	1013.5	1047.4	1052.3	1050.2	1055.8	1059.9	1036.4	1021.8
55°	936.5	962.9	969.1	962.2	975.3	987.1	964.9	951.8
57.5°	860.3	880.4	885.9	880.4	894.9	908.1	893.5	884.5
60°	783.3	801.4	804.8	800.0	817.3	829.1	822.1	816.6
62.5°	707.8	720.2	723.7	725.8	736.2	750.1	748.7	748.0
65°	631.5	644.7	646.1	652.3	659.2	677.3	673.8	673.8
67.5°	557.3	566.4	568.4	578.1	580.9	598.2	596.2	593.4
70°	480.4	489.4	492.2	501.9	506.0	519.9	520.6	518.5
72.5°	409.7	413.2	415.9	424.9	428.4	441.6	441.6	438.8
75°	337.6	336.9	339.7	348.7	352.2	363.2	362.5	359.1
77.5°	269.7	266.2	268.3	274.5	278.7	287.0	284.2	281.4
80°	205.9	200.3	201.0	207.3	210.0	215.6	212.8	210.7
82.5°	145.6	140.7	139.3	144.2	148.3	149.0	148.3	147.0
85°	88.7	84.6	85.3	87.3	90.1	90.1	91.5	91.5
87.5°	34.7	32.6	32.6	34.7	34.7	35.4	34.7	33.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)