

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: P241222

Luminaire Tested: **1800-X-80-L40-1-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241222
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-L40-1-M-UNV-STD-X-X
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT
MEDIUM DISTRIBUTION.
Light Source: (168) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4627.2 lumens
Efficiency: N/A
Efficacy: 110.7 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

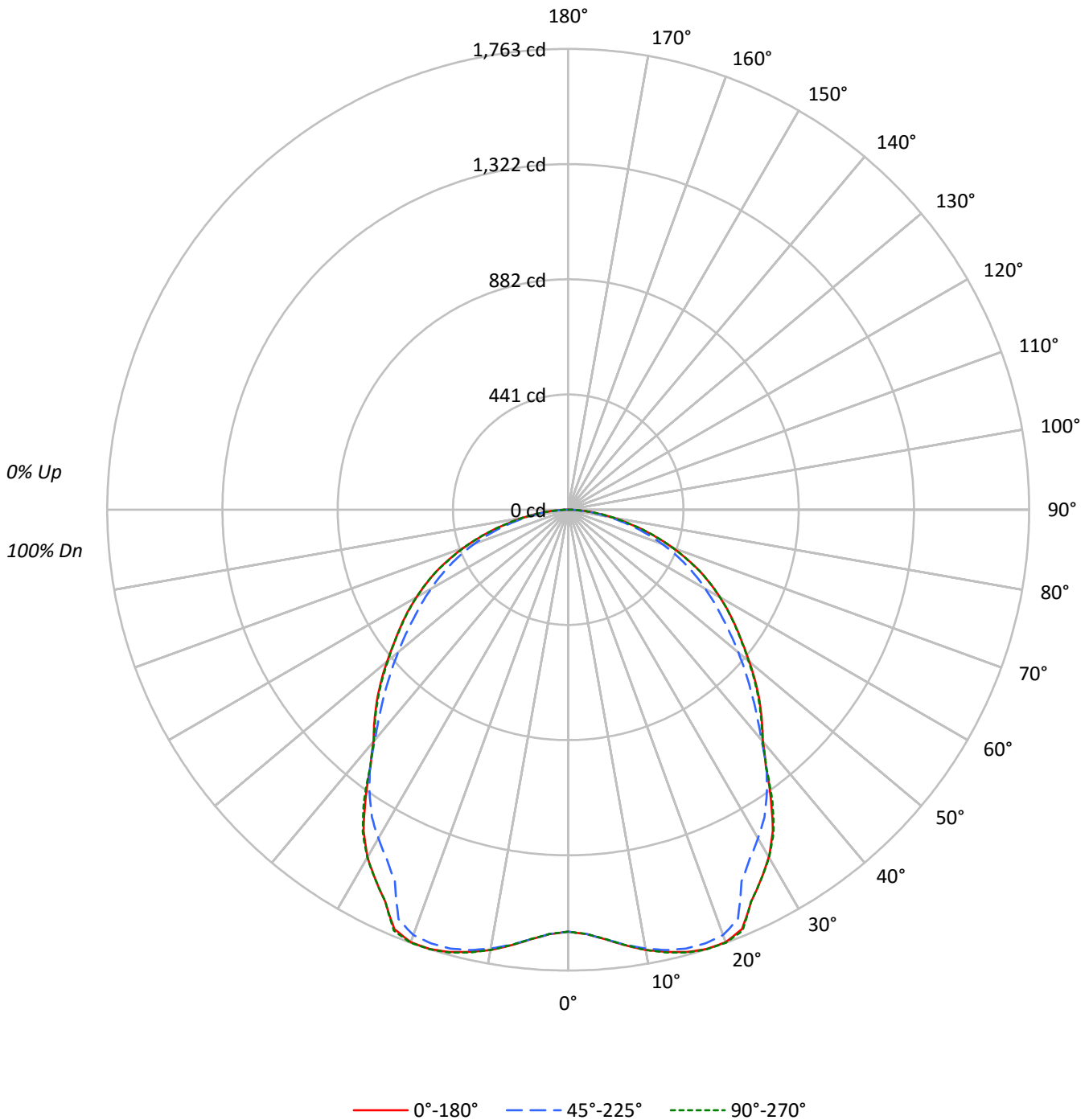
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P241222

CATALOG NUMBER: 1800-X-80-L40-1-M-UNV-STD-X-X

Luminous Intensity Polar Plot





TEST NUMBER: P241222

CATALOG NUMBER: 1800-X-80-L40-1-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°	16252	16252	16252
5°	16677	16677	16671
10°	17487	17428	17487
15°	18261	18119	18285
20°	18863	18558	18887
25°	18395	17427	18376
30°	17847	16882	17868
35°	16616	16281	16736
40°	15218	15107	15196
45°	14730	14122	14681
50°	14162	13307	14109
55°	13744	12634	13714
60°	13496	12192	13496
65°	13216	11820	13175
70°	12544	11240	12530
75°	11422	10337	11465
80°	9997	9075	10031
85°	8676	7556	8676



TEST NUMBER: P241222

CATALOG NUMBER: 1800-X-80-L40-1-M-UNV-STD-X-X

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.4	3.4
10°-20°	494.0	10.7
20°-30°	747.1	16.1
30°-40°	815.5	17.6
40°-50°	800.6	17.3
50°-60°	700.8	15.1
60°-70°	526.6	11.4
70°-80°	301.1	6.5
80°-90°	82.1	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°	1400.5	30.3
0°-40°	2216.0	47.9
0°-60°	3717.4	80.3
0°-90°	4627.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4627.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1614	1614	1614	1614	1614	
5°	1650	1650	1650	1650	1649	159
15°	1752	1750	1738	1751	1754	496
25°	1656	1658	1569	1658	1654	765
35°	1352	1286	1324	1280	1362	843
45°	1034	1055	992	1049	1031	797
55°	783	795	720	793	781	702
65°	555	533	496	533	553	546
75°	294	282	266	282	295	312
85°	75	71	65	71	75	84
90°	0	0	0	0	0	



TEST NUMBER: P241222

CATALOG NUMBER: 1800-X-80-L40-1-M-UNV-STD-X-X

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1
2.5°	1624.9	1623.8	1624.4	1623.8	1624.9	1624.9	1624.4	1624.9	1624.4	1624.4	1624.4
5°	1650.0	1648.8	1649.4	1648.3	1650.0	1650.5	1650.0	1650.5	1650.5	1650.0	1650.0
7.5°	1681.3	1679.0	1679.6	1678.4	1680.1	1680.1	1679.6	1679.6	1679.0	1678.4	1679.0
10°	1710.3	1709.1	1709.1	1708.6	1709.7	1709.1	1708.0	1707.4	1705.2	1704.6	1705.7
12.5°	1732.5	1733.6	1735.3	1735.3	1734.8	1734.2	1731.3	1729.6	1726.2	1725.6	1726.8
15°	1751.8	1752.4	1754.1	1753.5	1751.8	1749.0	1746.1	1742.7	1739.9	1738.2	1739.9
17.5°	1762.1	1762.1	1761.5	1759.8	1756.4	1753.0	1749.0	1745.6	1742.7	1740.4	1742.7
20°	1760.4	1760.4	1757.5	1754.1	1748.4	1743.3	1739.3	1735.9	1733.0	1731.9	1733.6
22.5°	1736.5	1738.2	1735.9	1735.3	1730.8	1723.9	1716.0	1707.4	1698.3	1695.5	1699.5
25°	1655.7	1654.5	1655.7	1666.5	1669.3	1646.6	1617.5	1590.8	1574.9	1568.6	1577.2
27.5°	1595.9	1594.8	1580.6	1557.8	1526.5	1511.7	1514.0	1511.7	1507.7	1504.9	1508.9
30°	1535.0	1526.5	1487.8	1446.3	1416.1	1411.6	1424.7	1441.2	1451.4	1452.0	1450.3
32.5°	1456.5	1439.5	1389.4	1357.5	1345.0	1342.7	1346.7	1363.8	1387.1	1396.2	1384.3
35°	1351.8	1342.2	1311.4	1291.0	1287.0	1284.1	1277.3	1285.8	1314.9	1324.5	1313.7
37.5°	1243.2	1252.3	1239.2	1231.8	1231.2	1225.5	1215.9	1217.0	1232.4	1246.0	1230.7
40°	1157.8	1166.9	1175.5	1174.9	1172.6	1164.1	1156.7	1152.7	1151.6	1149.3	1152.7
42.5°	1097.0	1093.5	1110.0	1119.1	1113.5	1107.8	1101.5	1098.7	1077.6	1067.9	1080.5
45°	1034.4	1033.2	1044.6	1064.0	1059.4	1051.4	1049.7	1038.3	1002.5	991.7	1005.3
47.5°	970.1	974.6	984.9	1000.8	1003.6	996.8	991.7	968.4	932.0	918.9	931.4
50°	904.1	914.3	928.5	934.8	937.6	933.7	930.2	900.1	863.1	849.5	863.7
52.5°	840.9	855.1	873.9	868.8	866.5	868.2	862.5	835.2	799.4	782.9	800.0
55°	782.9	796.5	813.0	802.8	792.0	798.2	793.1	771.5	740.2	719.7	739.1
57.5°	728.3	736.8	749.9	736.2	723.7	731.1	726.0	708.9	679.9	662.3	681.0
60°	670.2	677.1	684.5	671.4	658.3	662.3	660.0	644.6	620.7	605.4	619.6
62.5°	612.2	615.6	620.7	606.5	595.7	595.7	594.6	579.8	561.0	552.5	560.4
65°	554.7	554.2	555.9	541.6	533.7	532.5	530.3	516.6	501.8	496.1	502.4
67.5°	489.9	491.0	491.6	478.5	472.2	469.4	467.7	455.2	443.2	439.2	443.8
70°	426.1	426.7	426.7	414.8	410.2	405.7	404.0	394.3	384.6	381.8	385.8
72.5°	359.0	363.0	361.3	351.6	348.2	342.5	341.4	335.1	327.7	323.7	327.7
75°	293.6	299.3	297.6	289.0	285.0	279.4	279.9	276.5	268.5	265.7	269.7
77.5°	230.4	233.8	234.4	229.9	223.6	219.6	221.3	220.8	215.1	208.2	213.4
80°	172.4	176.4	176.9	173.0	167.8	164.4	166.7	166.7	162.2	156.5	161.0
82.5°	120.1	122.9	122.9	120.6	118.3	114.9	116.1	116.6	113.8	108.1	112.1
85°	75.1	75.7	74.5	72.8	71.1	70.0	70.0	71.1	68.8	65.4	68.3
87.5°	27.9	28.4	27.9	29.6	27.9	27.3	27.9	29.6	27.3	27.3	27.9
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: P241222

CATALOG NUMBER: 1800-X-80-L40-1-M-UNV-STD-X-X

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1	1614.1
2.5°	1624.4	1624.9	1624.9	1624.4	1624.4	1624.4	1623.8	1624.4
5°	1650.0	1650.5	1650.5	1649.4	1650.0	1649.4	1648.8	1649.4
7.5°	1679.6	1680.7	1680.1	1680.7	1681.3	1680.1	1680.1	1680.1
10°	1706.9	1708.6	1709.7	1710.9	1711.4	1710.3	1710.9	1710.3
12.5°	1729.1	1732.5	1734.8	1735.9	1737.0	1737.0	1735.9	1734.8
15°	1742.7	1746.7	1749.5	1753.0	1755.2	1755.8	1754.7	1754.1
17.5°	1746.1	1749.5	1753.5	1756.9	1760.4	1762.6	1763.8	1763.2
20°	1736.5	1739.3	1743.9	1749.0	1753.5	1758.1	1761.5	1762.6
22.5°	1708.6	1716.5	1725.1	1731.3	1735.3	1737.6	1739.3	1743.3
25°	1594.2	1615.3	1646.0	1669.3	1665.3	1654.5	1650.5	1654.0
27.5°	1512.9	1510.6	1507.2	1525.4	1553.8	1578.9	1590.8	1596.5
30°	1440.0	1423.0	1407.0	1413.3	1442.3	1485.5	1522.0	1536.8
32.5°	1363.8	1340.5	1338.2	1342.2	1355.8	1384.8	1434.3	1462.2
35°	1283.6	1271.1	1277.9	1283.0	1287.6	1302.3	1336.5	1361.5
37.5°	1211.9	1209.6	1218.7	1225.0	1227.2	1234.6	1247.7	1244.3
40°	1148.7	1150.4	1158.4	1165.2	1169.8	1170.3	1162.4	1156.1
42.5°	1091.8	1099.2	1099.2	1107.8	1115.7	1104.9	1088.4	1093.0
45°	1033.8	1045.7	1045.2	1052.6	1060.0	1041.2	1027.5	1031.0
47.5°	965.5	988.3	991.7	999.7	999.7	980.3	969.5	965.5
50°	896.1	925.7	929.7	934.2	932.0	924.6	910.3	900.7
52.5°	831.8	859.7	863.7	862.0	866.5	869.9	850.6	838.6
55°	768.7	790.3	795.4	789.7	800.5	810.2	792.0	781.2
57.5°	706.1	722.6	727.1	722.6	734.5	745.3	733.4	726.0
60°	642.9	657.7	660.6	656.6	670.8	680.5	674.8	670.2
62.5°	580.9	591.1	594.0	595.7	604.2	615.6	614.5	613.9
65°	518.3	529.1	530.3	535.4	541.1	555.9	553.0	553.0
67.5°	457.4	464.8	466.5	474.5	476.8	491.0	489.3	487.0
70°	394.3	401.7	404.0	411.9	415.3	426.7	427.3	425.6
72.5°	336.3	339.1	341.4	348.8	351.6	362.4	362.4	360.2
75°	277.1	276.5	278.8	286.2	289.0	298.1	297.6	294.7
77.5°	221.3	218.5	220.2	225.3	228.7	235.5	233.3	231.0
80°	169.0	164.4	165.0	170.1	172.4	176.9	174.7	173.0
82.5°	119.5	115.5	114.4	118.3	121.8	122.3	121.8	120.6
85°	72.8	69.4	70.0	71.7	74.0	74.0	75.1	75.1
87.5°	28.4	26.7	26.7	28.4	28.4	29.0	28.4	27.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)