

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: P241216

Luminaire Tested: **1800-X-80-L27-1-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241216
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-L27-1-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: 4066.8 lumens
Efficiency: N/A
Efficacy: 97.3 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

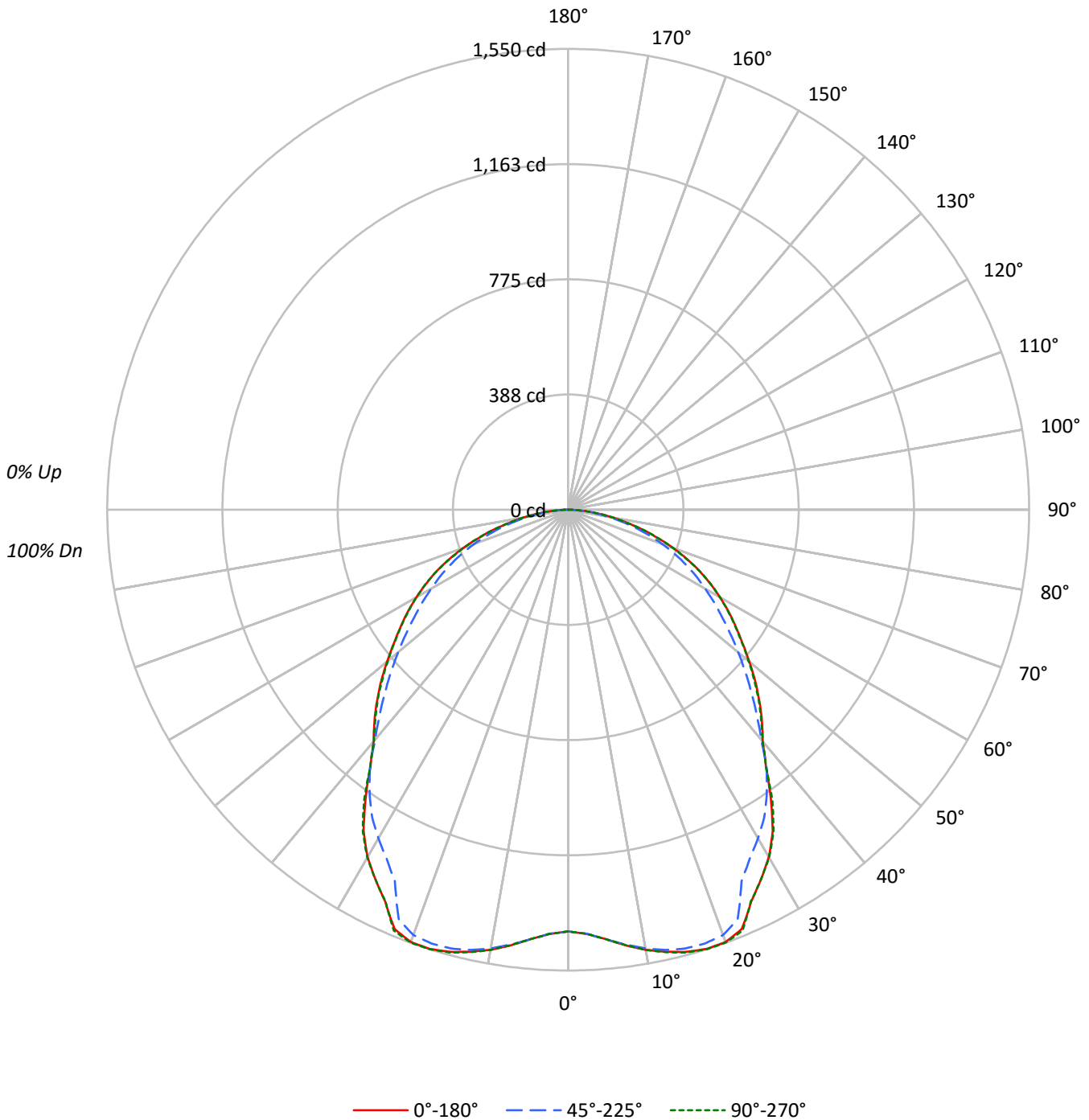
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	14284	14284	14284
5°	14657	14657	14652
10°	15369	15318	15369
15°	16050	15925	16071
20°	16579	16311	16600
25°	16166	15316	16149
30°	15686	14837	15703
35°	14604	14309	14709
40°	13375	13277	13356
45°	12945	12411	12903
50°	12447	11695	12400
55°	12079	11105	12053
60°	11863	10715	11863
65°	11615	10388	11579
70°	11025	9877	11010
75°	10037	9084	10076
80°	8785	7973	8814
85°	7625	6643	7625



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.1	3.4
10°-20°	434.2	10.7
20°-30°	656.6	16.1
30°-40°	716.7	17.6
40°-50°	703.6	17.3
50°-60°	616.0	15.1
60°-70°	462.8	11.4
70°-80°	264.6	6.5
80°-90°	72.2	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°	1230.9	30.3
0°-40°	1947.6	47.9
0°-60°	3267.2	80.3
0°-90°	4066.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4066.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1419	1419	1419	1419	1419	
5°	1450	1450	1450	1450	1450	140
15°	1540	1538	1528	1539	1542	436
25°	1455	1457	1379	1457	1454	672
35°	1188	1130	1164	1125	1197	741
45°	909	928	872	922	906	701
55°	688	699	633	697	687	617
65°	488	468	436	468	486	480
75°	258	248	234	248	259	274
85°	66	62	58	62	66	74
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°	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6
2.5°	1428.1	1427.1	1427.6	1427.1	1428.1	1428.1	1427.6	1428.1	1427.6	1427.6	1427.6
5°	1450.1	1449.1	1449.6	1448.6	1450.1	1450.6	1450.1	1450.6	1450.6	1450.1	1450.1
7.5°	1477.7	1475.7	1476.2	1475.2	1476.7	1476.7	1476.2	1476.2	1475.7	1475.2	1475.7
10°	1503.2	1502.2	1502.2	1501.7	1502.7	1502.2	1501.2	1500.7	1498.7	1498.2	1499.2
12.5°	1522.7	1523.7	1525.2	1525.2	1524.7	1524.2	1521.7	1520.2	1517.2	1516.7	1517.7
15°	1539.7	1540.2	1541.7	1541.2	1539.7	1537.2	1534.7	1531.7	1529.2	1527.7	1529.2
17.5°	1548.7	1548.7	1548.2	1546.7	1543.7	1540.7	1537.2	1534.2	1531.7	1529.7	1531.7
20°	1547.2	1547.2	1544.7	1541.7	1536.7	1532.2	1528.7	1525.7	1523.2	1522.2	1523.7
22.5°	1526.2	1527.7	1525.7	1525.2	1521.2	1515.2	1508.2	1500.7	1492.7	1490.2	1493.7
25°	1455.1	1454.1	1455.1	1464.6	1467.1	1447.1	1421.6	1398.1	1384.1	1378.6	1386.1
27.5°	1402.6	1401.6	1389.1	1369.1	1341.6	1328.6	1330.6	1328.6	1325.1	1322.6	1326.1
30°	1349.1	1341.6	1307.6	1271.1	1244.6	1240.6	1252.1	1266.6	1275.6	1276.1	1274.6
32.5°	1280.1	1265.1	1221.1	1193.1	1182.1	1180.1	1183.6	1198.6	1219.1	1227.1	1216.6
35°	1188.1	1179.6	1152.6	1134.6	1131.1	1128.6	1122.6	1130.1	1155.6	1164.1	1154.6
37.5°	1092.6	1100.6	1089.1	1082.6	1082.1	1077.1	1068.6	1069.6	1083.1	1095.1	1081.6
40°	1017.6	1025.6	1033.1	1032.6	1030.6	1023.1	1016.6	1013.1	1012.1	1010.1	1013.1
42.5°	964.1	961.1	975.6	983.6	978.6	973.6	968.1	965.6	947.1	938.6	949.6
45°	909.1	908.1	918.1	935.1	931.1	924.1	922.6	912.6	881.1	871.6	883.6
47.5°	852.6	856.6	865.6	879.6	882.1	876.1	871.6	851.1	819.1	807.6	818.6
50°	794.6	803.6	816.1	821.6	824.1	820.6	817.6	791.1	758.6	746.6	759.1
52.5°	739.1	751.6	768.1	763.6	761.6	763.1	758.1	734.1	702.6	688.1	703.1
55°	688.1	700.1	714.6	705.6	696.1	701.6	697.1	678.1	650.6	632.6	649.6
57.5°	640.1	647.6	659.1	647.1	636.1	642.6	638.1	623.1	597.6	582.1	598.6
60°	589.1	595.1	601.6	590.1	578.6	582.1	580.1	566.6	545.6	532.1	544.6
62.5°	538.1	541.1	545.6	533.1	523.6	523.6	522.6	509.6	493.1	485.5	492.6
65°	487.5	487.0	488.5	476.0	469.0	468.0	466.0	454.0	441.0	436.0	441.5
67.5°	430.5	431.5	432.0	420.5	415.0	412.5	411.0	400.0	389.5	386.0	390.0
70°	374.5	375.0	375.0	364.5	360.5	356.5	355.0	346.5	338.0	335.5	339.0
72.5°	315.5	319.0	317.5	309.0	306.0	301.0	300.0	294.5	288.0	284.5	288.0
75°	258.0	263.0	261.5	254.0	250.5	245.5	246.0	243.0	236.0	233.5	237.0
77.5°	202.5	205.5	206.0	202.0	196.5	193.0	194.5	194.0	189.0	183.0	187.5
80°	151.5	155.0	155.5	152.0	147.5	144.5	146.5	146.5	142.5	137.5	141.5
82.5°	105.5	108.0	108.0	106.0	104.0	101.0	102.0	102.5	100.0	95.0	98.5
85°	66.0	66.5	65.5	64.0	62.5	61.5	61.5	62.5	60.5	57.5	60.0
87.5°	24.5	25.0	24.5	26.0	24.5	24.0	24.5	26.0	24.0	24.0	24.5
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°	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6
2.5°	1427.6	1428.1	1428.1	1427.6	1427.6	1427.6	1427.1	1427.6
5°	1450.1	1450.6	1450.6	1449.6	1450.1	1449.6	1449.1	1449.6
7.5°	1476.2	1477.2	1476.7	1477.2	1477.7	1476.7	1476.7	1476.7
10°	1500.2	1501.7	1502.7	1503.7	1504.2	1503.2	1503.7	1503.2
12.5°	1519.7	1522.7	1524.7	1525.7	1526.7	1526.7	1525.7	1524.7
15°	1531.7	1535.2	1537.7	1540.7	1542.7	1543.2	1542.2	1541.7
17.5°	1534.7	1537.7	1541.2	1544.2	1547.2	1549.2	1550.2	1549.7
20°	1526.2	1528.7	1532.7	1537.2	1541.2	1545.2	1548.2	1549.2
22.5°	1501.7	1508.7	1516.2	1521.7	1525.2	1527.2	1528.7	1532.2
25°	1401.1	1419.6	1446.6	1467.1	1463.6	1454.1	1450.6	1453.6
27.5°	1329.6	1327.6	1324.6	1340.6	1365.6	1387.6	1398.1	1403.1
30°	1265.6	1250.6	1236.6	1242.1	1267.6	1305.6	1337.6	1350.6
32.5°	1198.6	1178.1	1176.1	1179.6	1191.6	1217.1	1260.6	1285.1
35°	1128.1	1117.1	1123.1	1127.6	1131.6	1144.6	1174.6	1196.6
37.5°	1065.1	1063.1	1071.1	1076.6	1078.6	1085.1	1096.6	1093.6
40°	1009.6	1011.1	1018.1	1024.1	1028.1	1028.6	1021.6	1016.1
42.5°	959.6	966.1	966.1	973.6	980.6	971.1	956.6	960.6
45°	908.6	919.1	918.6	925.1	931.6	915.1	903.1	906.1
47.5°	848.6	868.6	871.6	878.6	878.6	861.6	852.1	848.6
50°	787.6	813.6	817.1	821.1	819.1	812.6	800.1	791.6
52.5°	731.1	755.6	759.1	757.6	761.6	764.6	747.6	737.1
55°	675.6	694.6	699.1	694.1	703.6	712.1	696.1	686.6
57.5°	620.6	635.1	639.1	635.1	645.6	655.1	644.6	638.1
60°	565.1	578.1	580.6	577.1	589.6	598.1	593.1	589.1
62.5°	510.6	519.6	522.1	523.6	531.1	541.1	540.1	539.6
65°	455.5	465.0	466.0	470.5	475.5	488.5	486.0	486.0
67.5°	402.0	408.5	410.0	417.0	419.0	431.5	430.0	428.0
70°	346.5	353.0	355.0	362.0	365.0	375.0	375.5	374.0
72.5°	295.5	298.0	300.0	306.5	309.0	318.5	318.5	316.5
75°	243.5	243.0	245.0	251.5	254.0	262.0	261.5	259.0
77.5°	194.5	192.0	193.5	198.0	201.0	207.0	205.0	203.0
80°	148.5	144.5	145.0	149.5	151.5	155.5	153.5	152.0
82.5°	105.0	101.5	100.5	104.0	107.0	107.5	107.0	106.0
85°	64.0	61.0	61.5	63.0	65.0	65.0	66.0	66.0
87.5°	25.0	23.5	23.5	25.0	25.0	25.5	25.0	24.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)