

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: P241226

Luminaire Tested: **1800-X-80-L30-2-M-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241226
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-L30-2-M-UNV-STD-X-X
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT
MEDIUM DISTRIBUTION.
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

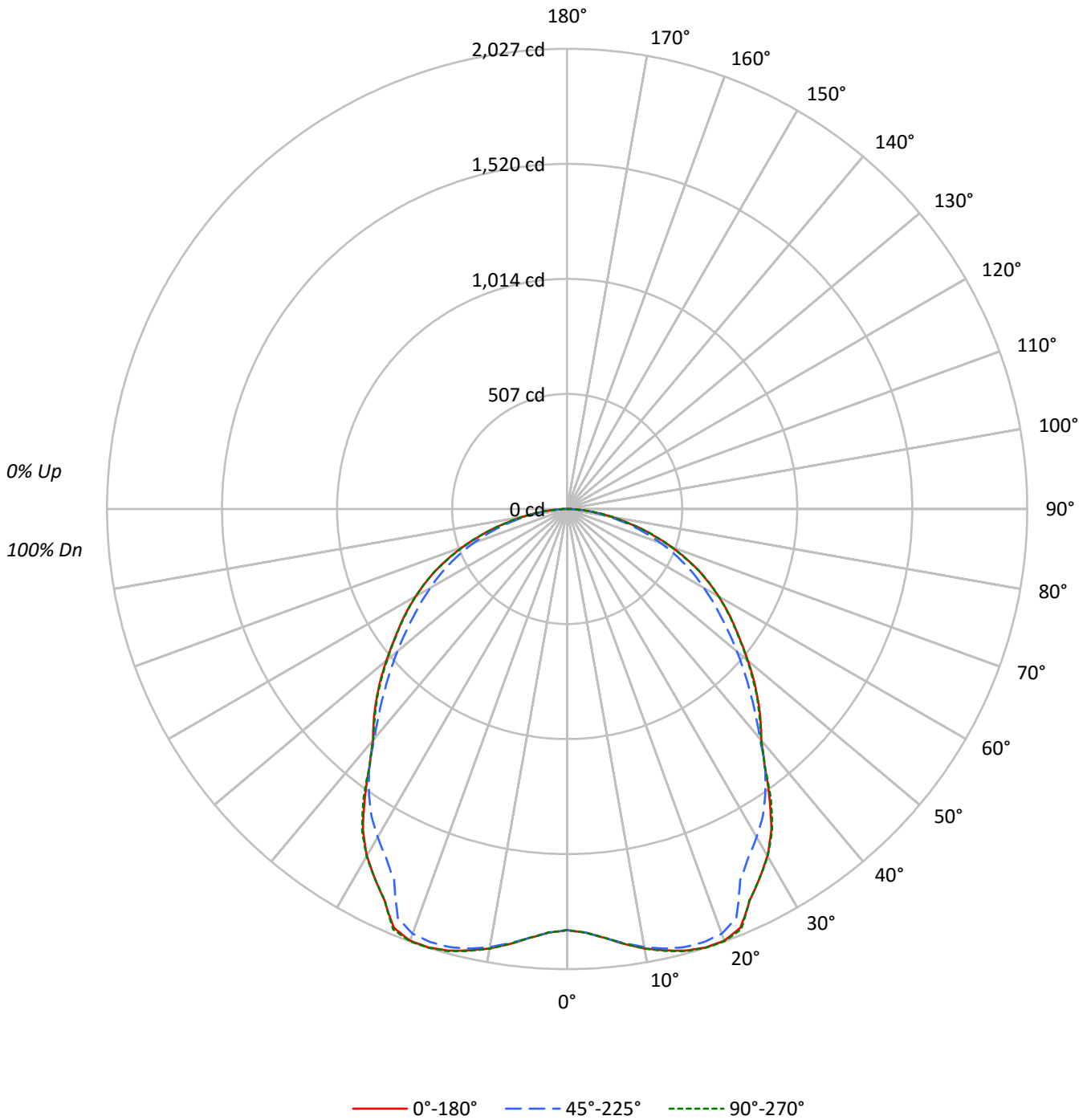
Lumens per Lamp: N/A
Luminaire Lumens: 5318.8 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.33
Luminous Opening: Circular (Dia: 1.17' x H: 0')
CIE Type: Direct

Input Watts (W): 53.9
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



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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°	18682	18682	18682
5°	19170	19170	19163
10°	20100	20034	20100
15°	20991	20828	21018
20°	21682	21332	21710
25°	21143	20032	21122
30°	20515	19405	20537
35°	19101	18715	19237
40°	17494	17365	17467
45°	16931	16232	16874
50°	16279	15295	16218
55°	15798	14523	15762
60°	15514	14014	15514
65°	15191	13588	15146
70°	14420	12918	14402
75°	13130	11881	13181
80°	11493	10426	11527
85°	9970	8688	9970



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.2	3.4
10°-20°	567.9	10.7
20°-30°	858.7	16.1
30°-40°	937.4	17.6
40°-50°	920.2	17.3
50°-60°	805.6	15.1
60°-70°	605.4	11.4
70°-80°	346.1	6.5
80°-90°	94.4	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°	1609.8	30.3
0°-40°	2547.2	47.9
0°-60°	4273.0	80.3
0°-90°	5318.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5318.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1855	1855	1855	1855	1855	
5°	1897	1897	1897	1897	1896	183
15°	2014	2012	1998	2013	2016	570
25°	1903	1906	1803	1905	1901	879
35°	1554	1478	1522	1472	1565	969
45°	1189	1213	1140	1206	1185	917
55°	900	914	827	911	898	807
65°	638	613	570	612	636	627
75°	338	324	305	325	339	358
85°	86	81	75	81	86	97
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°	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4
2.5°	1867.8	1866.5	1867.2	1866.5	1867.8	1867.8	1867.2	1867.8	1867.2	1867.2	1867.2
5°	1896.6	1895.3	1895.9	1894.6	1896.6	1897.2	1896.6	1897.2	1897.2	1896.6	1896.6
7.5°	1932.6	1929.9	1930.6	1929.3	1931.3	1931.3	1930.6	1930.6	1929.9	1929.3	1929.9
10°	1965.9	1964.6	1964.6	1964.0	1965.3	1964.6	1963.3	1962.6	1960.0	1959.4	1960.7
12.5°	1991.4	1992.7	1994.7	1994.7	1994.0	1993.4	1990.1	1988.2	1984.2	1983.6	1984.9
15°	2013.7	2014.3	2016.3	2015.6	2013.7	2010.4	2007.1	2003.2	1999.9	1998.0	1999.9
17.5°	2025.4	2025.4	2024.8	2022.8	2018.9	2015.0	2010.4	2006.5	2003.2	2000.6	2003.2
20°	2023.5	2023.5	2020.2	2016.3	2009.7	2003.8	1999.3	1995.3	1992.1	1990.8	1992.7
22.5°	1996.0	1998.0	1995.3	1994.7	1989.5	1981.6	1972.5	1962.6	1952.2	1948.9	1953.5
25°	1903.1	1901.8	1903.1	1915.6	1918.8	1892.7	1859.3	1828.6	1810.3	1803.1	1812.9
27.5°	1834.5	1833.2	1816.8	1790.6	1754.7	1737.7	1740.3	1737.7	1733.1	1729.8	1734.4
30°	1764.5	1754.7	1710.2	1662.5	1627.8	1622.6	1637.6	1656.6	1668.3	1669.0	1667.0
32.5°	1674.2	1654.6	1597.1	1560.4	1546.1	1543.4	1548.0	1567.6	1594.4	1604.9	1591.2
35°	1553.9	1542.8	1507.5	1483.9	1479.3	1476.1	1468.2	1478.0	1511.4	1522.5	1510.1
37.5°	1429.0	1439.4	1424.4	1415.9	1415.3	1408.7	1397.6	1398.9	1416.6	1432.3	1414.6
40°	1330.9	1341.3	1351.2	1350.5	1347.9	1338.1	1329.6	1325.0	1323.7	1321.1	1325.0
42.5°	1260.9	1257.0	1275.9	1286.4	1279.9	1273.3	1266.1	1262.9	1238.7	1227.6	1241.9
45°	1189.0	1187.7	1200.7	1223.0	1217.7	1208.6	1206.6	1193.5	1152.3	1139.9	1155.6
47.5°	1115.1	1120.3	1132.1	1150.4	1153.7	1145.8	1139.9	1113.1	1071.2	1056.2	1070.6
50°	1039.2	1051.0	1067.3	1074.5	1077.8	1073.2	1069.3	1034.6	992.1	976.4	992.8
52.5°	966.6	983.0	1004.5	998.7	996.0	998.0	991.5	960.1	918.9	899.9	919.5
55°	899.9	915.6	934.6	922.8	910.4	917.6	911.7	886.8	850.9	827.3	849.5
57.5°	837.1	846.9	862.0	846.3	831.9	840.4	834.5	814.9	781.5	761.3	782.8
60°	770.4	778.3	786.8	771.7	756.7	761.3	758.6	741.0	713.5	695.9	712.2
62.5°	703.7	707.6	713.5	697.2	684.7	684.7	683.4	666.4	644.8	635.0	644.2
65°	637.6	637.0	639.0	622.6	613.4	612.1	609.5	593.8	576.8	570.3	577.5
67.5°	563.1	564.4	565.1	550.0	542.8	539.5	537.6	523.2	509.5	504.9	510.1
70°	489.8	490.5	490.5	476.8	471.5	466.3	464.3	453.2	442.1	438.8	443.4
72.5°	412.7	417.3	415.3	404.2	400.2	393.7	392.4	385.2	376.7	372.1	376.7
75°	337.5	344.0	342.0	332.2	327.7	321.1	321.8	317.8	308.7	305.4	310.0
77.5°	264.9	268.8	269.4	264.2	257.0	252.4	254.4	253.8	247.2	239.4	245.2
80°	198.2	202.7	203.4	198.8	192.9	189.0	191.6	191.6	186.4	179.8	185.1
82.5°	138.0	141.3	141.3	138.6	136.0	132.1	133.4	134.1	130.8	124.3	128.8
85°	86.3	87.0	85.7	83.7	81.7	80.4	80.4	81.7	79.1	75.2	78.5
87.5°	32.0	32.7	32.0	34.0	32.0	31.4	32.0	34.0	31.4	31.4	32.0
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°	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4	1855.4
2.5°	1867.2	1867.8	1867.8	1867.2	1867.2	1867.2	1866.5	1867.2
5°	1896.6	1897.2	1897.2	1895.9	1896.6	1895.9	1895.3	1895.9
7.5°	1930.6	1931.9	1931.3	1931.9	1932.6	1931.3	1931.3	1931.3
10°	1962.0	1964.0	1965.3	1966.6	1967.2	1965.9	1966.6	1965.9
12.5°	1987.5	1991.4	1994.0	1995.3	1996.7	1996.7	1995.3	1994.0
15°	2003.2	2007.8	2011.0	2015.0	2017.6	2018.2	2016.9	2016.3
17.5°	2007.1	2011.0	2015.6	2019.5	2023.5	2026.1	2027.4	2026.7
20°	1996.0	1999.3	2004.5	2010.4	2015.6	2020.9	2024.8	2026.1
22.5°	1964.0	1973.1	1982.9	1990.1	1994.7	1997.3	1999.3	2003.8
25°	1832.5	1856.7	1892.0	1918.8	1914.3	1901.8	1897.2	1901.2
27.5°	1739.0	1736.4	1732.4	1753.4	1786.1	1814.8	1828.6	1835.1
30°	1655.3	1635.6	1617.3	1624.5	1657.9	1707.6	1749.4	1766.4
32.5°	1567.6	1540.8	1538.2	1542.8	1558.5	1591.8	1648.7	1680.8
35°	1475.4	1461.0	1468.9	1474.8	1480.0	1497.0	1536.2	1565.0
37.5°	1393.0	1390.4	1400.9	1408.1	1410.7	1419.2	1434.2	1430.3
40°	1320.4	1322.4	1331.5	1339.4	1344.6	1345.3	1336.1	1328.9
42.5°	1255.0	1263.5	1263.5	1273.3	1282.5	1270.1	1251.1	1256.3
45°	1188.3	1202.0	1201.4	1209.9	1218.4	1196.8	1181.1	1185.0
47.5°	1109.8	1136.0	1139.9	1149.1	1149.1	1126.8	1114.4	1109.8
50°	1030.0	1064.1	1068.6	1073.9	1071.2	1062.7	1046.4	1035.3
52.5°	956.1	988.2	992.8	990.8	996.0	1000.0	977.7	964.0
55°	883.6	908.4	914.3	907.7	920.2	931.3	910.4	897.9
57.5°	811.6	830.6	835.8	830.6	844.3	856.7	843.0	834.5
60°	739.0	756.0	759.3	754.7	771.1	782.2	775.6	770.4
62.5°	667.7	679.5	682.8	684.7	694.5	707.6	706.3	705.7
65°	595.8	608.2	609.5	615.4	622.0	639.0	635.7	635.7
67.5°	525.8	534.3	536.3	545.4	548.1	564.4	562.4	559.8
70°	453.2	461.7	464.3	473.5	477.4	490.5	491.2	489.2
72.5°	386.5	389.8	392.4	400.9	404.2	416.6	416.6	414.0
75°	318.5	317.8	320.5	329.0	332.2	342.7	342.0	338.8
77.5°	254.4	251.1	253.1	259.0	262.9	270.8	268.1	265.5
80°	194.2	189.0	189.7	195.5	198.2	203.4	200.8	198.8
82.5°	137.3	132.8	131.5	136.0	140.0	140.6	140.0	138.6
85°	83.7	79.8	80.4	82.4	85.0	85.0	86.3	86.3
87.5°	32.7	30.7	30.7	32.7	32.7	33.4	32.7	31.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)