

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: P241210

Luminaire Tested: **1800-X-90-L30-4-W-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241210
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL90337-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1800-X-90-L30-4-W-UNV-STD-X-X
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT
WIDE DISTRIBUTION
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

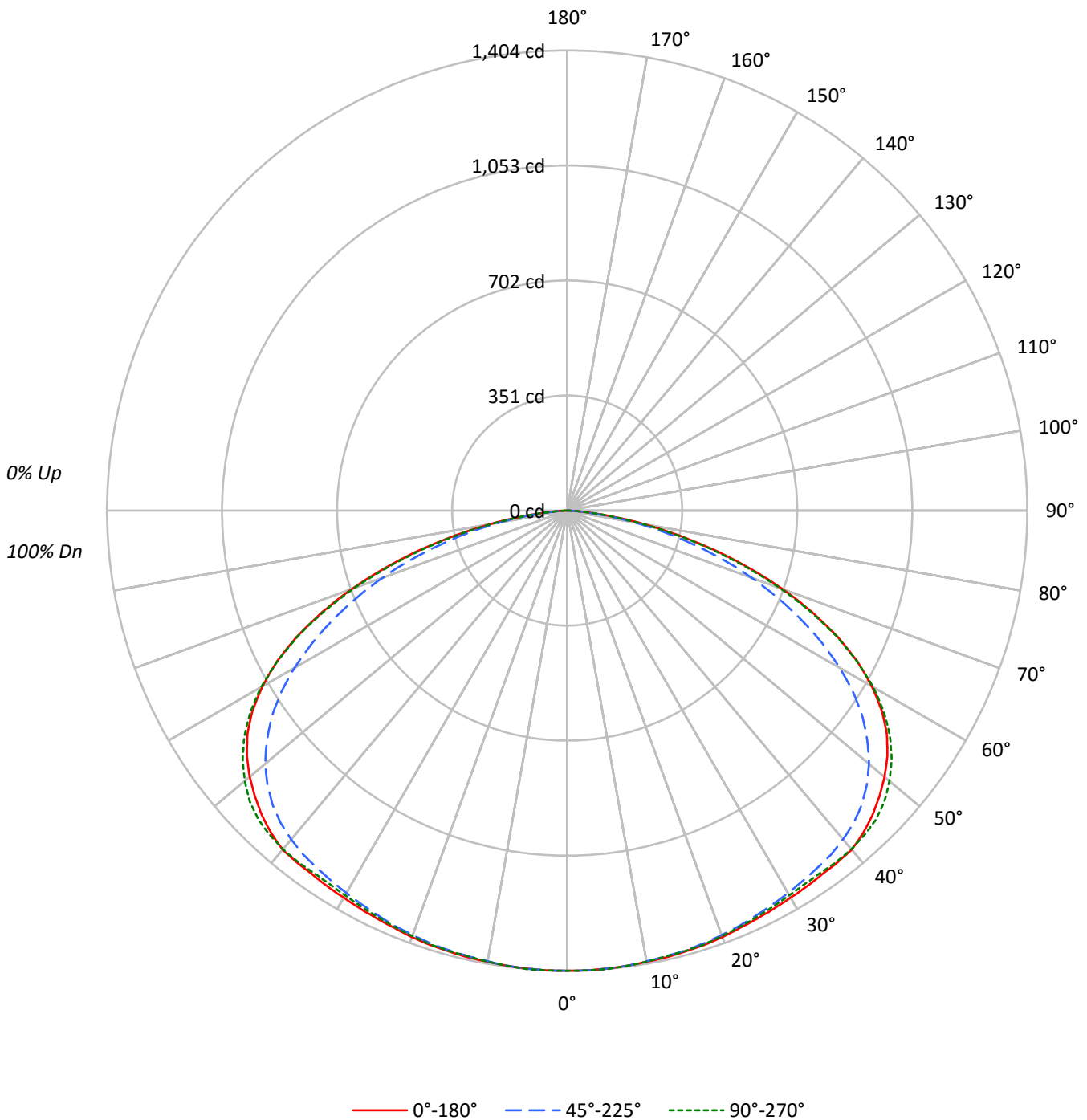
Lumens per Lamp: N/A
Luminaire Lumens: 5399.2 lumens
Efficiency: N/A
Efficacy: 65.1 lumens/watt
Spacing Criteria (0/90/45): 1.48 / 1.48 / 1.61
Luminous Opening: Circular (Dia: 1.17' x H: 0')
CIE Type: Direct

Input Watts (W): 82.9
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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	61	85	75	67	60	72	65	59	69	63	58	67	62	57	55
4	80	67	58	51	78	66	57	50	63	56	49	61	54	49	59	53	48	46
5	73	59	50	43	71	58	49	43	56	48	42	54	47	42	52	46	41	39
6	67	53	44	37	65	52	43	37	50	42	36	48	41	36	47	40	35	33
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29
8	57	43	34	28	56	43	34	28	41	33	28	40	33	28	39	32	27	25
9	53	39	31	25	52	39	31	25	38	30	25	37	30	25	35	29	24	23
10	50	36	28	22	49	36	28	22	35	27	22	34	27	22	33	27	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14140	14140	14140
5°	14178	14178	14194
10°	14292	14275	14292
15°	14520	14485	14503
20°	14838	14768	14803
25°	15258	15149	15204
30°	15854	15665	15759
35°	16661	16361	16581
40°	17751	17216	17730
45°	18744	18094	18976
50°	19803	18834	20110
55°	20906	19333	21106
60°	21620	19357	21719
65°	21660	18786	21581
70°	20575	17649	20334
75°	18063	15526	17619
80°	13887	11997	13412
85°	7336	6019	6966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.7	2.5
10°-20°	393.7	7.3
20°-30°	632.4	11.7
30°-40°	843.0	15.6
40°-50°	1000.4	18.5
50°-60°	1022.6	18.9
60°-70°	833.7	15.4
70°-80°	454.8	8.4
80°-90°	84.7	1.6
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°	1159.9	21.5
0°-40°	2002.9	37.1
0°-60°	4025.9	74.6
0°-90°	5399.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5399.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1404	1404	1404	1404	1404	
5°	1403	1403	1403	1403	1404	134
15°	1393	1391	1390	1390	1391	395
25°	1373	1368	1364	1367	1368	636
35°	1355	1346	1331	1341	1349	852
45°	1316	1294	1271	1305	1333	1016
55°	1191	1145	1101	1155	1202	1059
65°	909	849	788	847	906	891
75°	464	430	399	430	453	492
85°	64	60	52	59	60	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1404.3	1404.3	1404.3	1404.3	1404.3
2.5°	1404.3	1404.3	1404.3	1404.3	1404.3
5°	1402.7	1402.7	1402.7	1402.7	1404.3
7.5°	1401.0	1401.0	1401.0	1401.0	1401.0
10°	1397.8	1397.8	1396.2	1396.2	1397.8
12.5°	1396.2	1394.5	1392.9	1392.9	1392.9
15°	1392.9	1391.3	1389.6	1389.6	1391.3
17.5°	1389.6	1386.4	1384.8	1384.8	1388.0
20°	1384.8	1379.9	1378.2	1379.9	1381.5
22.5°	1378.2	1375.0	1371.7	1373.4	1375.0
25°	1373.4	1368.5	1363.6	1366.8	1368.5
27.5°	1368.5	1361.9	1355.4	1358.7	1361.9
30°	1363.6	1355.4	1347.3	1350.5	1355.4
32.5°	1360.3	1350.5	1339.1	1345.7	1350.5
35°	1355.4	1345.7	1331.0	1340.8	1348.9
37.5°	1353.8	1339.1	1322.8	1335.9	1350.5
40°	1350.5	1329.4	1309.8	1331.0	1348.9
42.5°	1335.9	1314.7	1293.5	1319.6	1342.4
45°	1316.3	1293.5	1270.7	1304.9	1332.6
47.5°	1291.9	1267.5	1239.8	1280.5	1313.1
50°	1264.2	1233.2	1202.3	1246.3	1283.8
52.5°	1231.6	1192.5	1155.0	1205.6	1247.9
55°	1190.9	1145.3	1101.3	1155.0	1202.3
57.5°	1138.8	1088.3	1036.1	1094.8	1146.9
60°	1073.6	1019.8	961.2	1021.5	1078.5
62.5°	998.7	938.4	878.1	941.6	997.0
65°	909.1	848.8	788.5	847.1	905.8
67.5°	808.0	749.4	695.6	747.8	801.5
70°	698.9	646.8	599.5	643.5	690.7
72.5°	583.2	539.2	500.1	537.6	571.8
75°	464.3	430.1	399.1	430.1	452.9
77.5°	348.6	322.6	301.4	325.8	338.9
80°	239.5	223.2	206.9	224.8	231.3
82.5°	141.7	135.2	122.2	133.6	136.8
85°	63.5	60.3	52.1	58.6	60.3
87.5°	11.4	9.8	8.1	9.8	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)