

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: P241206

Luminaire Tested: **1800-X-90-L40-3-W-UNV-STD-X-X**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241206  
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-L40-3-W-UNV-STD-X-X  
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT  
WIDE DISTRIBUTION  
Light Source: (168) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5121.4 lumens  
Efficiency: N/A  
Efficacy: 72.5 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

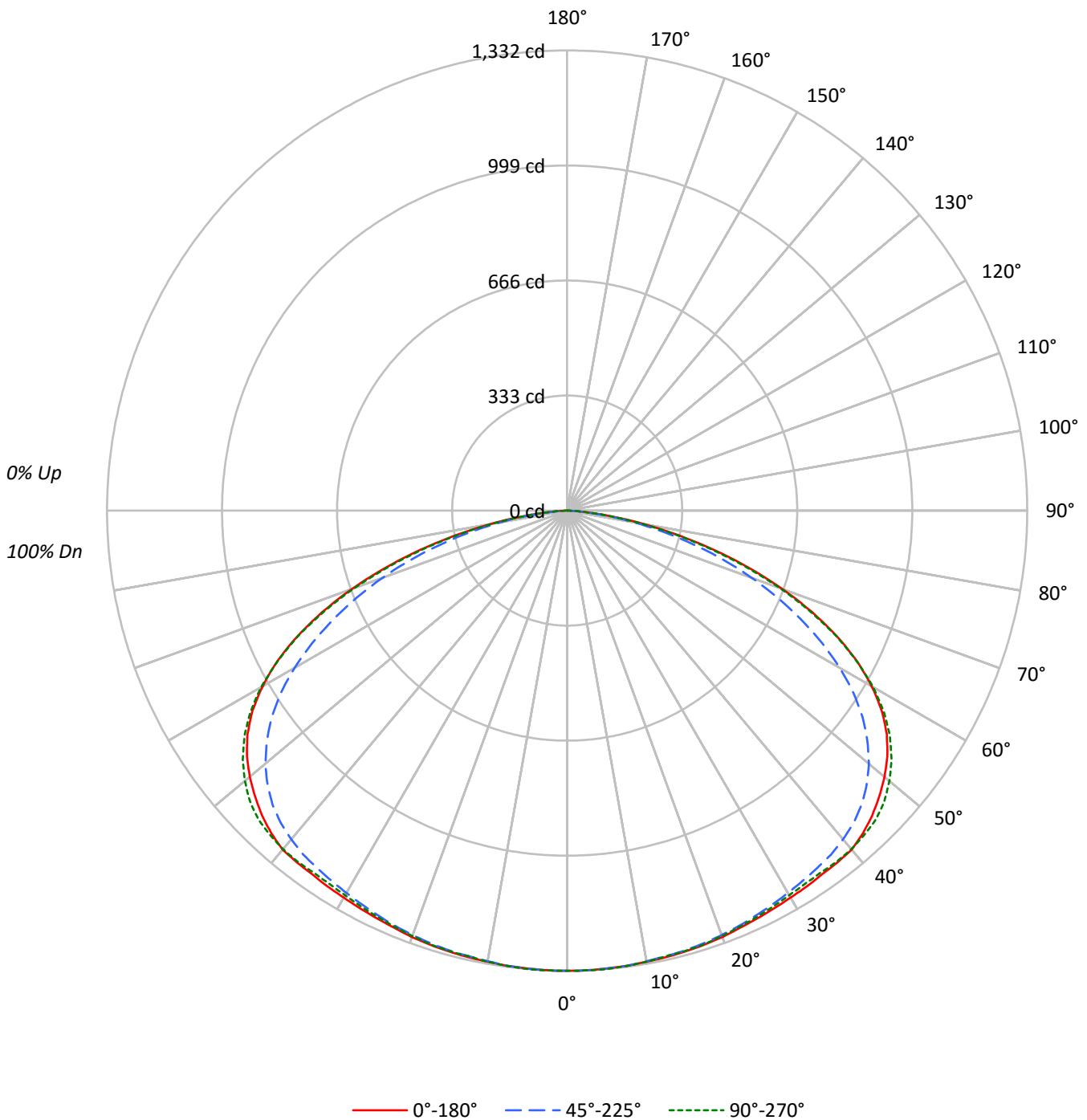
Input Watts (W): 70.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	13413	13413	13413
5°	13448	13448	13464
10°	13556	13540	13556
15°	13772	13740	13757
20°	14074	14008	14041
25°	14473	14370	14422
30°	15038	14859	14948
35°	15804	15519	15728
40°	16839	16330	16818
45°	17780	17163	18000
50°	18785	17864	19075
55°	19830	18338	20019
60°	20509	18360	20601
65°	20545	17819	20471
70°	19516	16742	19289
75°	17133	14729	16713
80°	13174	11382	12722
85°	6966	5707	6608



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.9	2.5
10°-20°	373.5	7.3
20°-30°	599.9	11.7
30°-40°	799.6	15.6
40°-50°	949.0	18.5
50°-60°	970.0	18.9
60°-70°	790.8	15.4
70°-80°	431.4	8.4
80°-90°	80.4	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°	1100.2	21.5
0°-40°	1899.8	37.1
0°-60°	3818.8	74.6
0°-90°	5121.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5121.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1332	1332	1332	1332	1332	
5°	1330	1330	1330	1330	1332	127
15°	1321	1320	1318	1318	1320	374
25°	1303	1298	1293	1296	1298	603
35°	1286	1276	1262	1272	1280	808
45°	1249	1227	1205	1238	1264	964
55°	1130	1086	1045	1096	1140	1005
65°	862	805	748	804	859	846
75°	440	408	379	408	430	466
85°	60	57	49	56	57	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1332.1	1332.1	1332.1	1332.1	1332.1
2.5°	1332.1	1332.1	1332.1	1332.1	1332.1
5°	1330.5	1330.5	1330.5	1330.5	1332.1
7.5°	1329.0	1329.0	1329.0	1329.0	1329.0
10°	1325.9	1325.9	1324.3	1324.3	1325.9
12.5°	1324.3	1322.8	1321.2	1321.2	1321.2
15°	1321.2	1319.7	1318.1	1318.1	1319.7
17.5°	1318.1	1315.1	1313.5	1313.5	1316.6
20°	1313.5	1308.9	1307.3	1308.9	1310.4
22.5°	1307.3	1304.2	1301.2	1302.7	1304.2
25°	1302.7	1298.1	1293.4	1296.5	1298.1
27.5°	1298.1	1291.9	1285.7	1288.8	1291.9
30°	1293.4	1285.7	1278.0	1281.1	1285.7
32.5°	1290.3	1281.1	1270.2	1276.4	1281.1
35°	1285.7	1276.4	1262.5	1271.8	1279.5
37.5°	1284.2	1270.2	1254.8	1267.2	1281.1
40°	1281.1	1261.0	1242.4	1262.5	1279.5
42.5°	1267.2	1247.1	1227.0	1251.7	1273.3
45°	1248.6	1227.0	1205.3	1237.8	1264.1
47.5°	1225.4	1202.3	1176.0	1214.6	1245.5
50°	1199.2	1169.8	1140.4	1182.2	1217.7
52.5°	1168.3	1131.2	1095.6	1143.5	1183.7
55°	1129.6	1086.4	1044.6	1095.6	1140.4
57.5°	1080.2	1032.3	982.8	1038.4	1087.9
60°	1018.4	967.4	911.7	968.9	1023.0
62.5°	947.3	890.1	832.9	893.2	945.7
65°	862.3	805.1	747.9	803.6	859.2
67.5°	766.5	710.8	659.8	709.3	760.3
70°	662.9	613.5	568.7	610.4	655.2
72.5°	553.2	511.5	474.4	510.0	542.4
75°	440.4	408.0	378.6	408.0	429.6
77.5°	330.7	306.0	285.9	309.1	321.4
80°	227.2	211.7	196.3	213.3	219.4
82.5°	134.4	128.3	115.9	126.7	129.8
85°	60.3	57.2	49.4	55.6	57.2
87.5°	10.8	9.3	7.7	9.3	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)