

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: P241208

Luminaire Tested: **1800-X-90-L27-4-W-UNV-STD-X-X**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241208  
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-L27-4-W-UNV-STD-X-X  
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT  
WIDE DISTRIBUTION  
Light Source: (168) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5164.0 lumens  
Efficiency: N/A  
Efficacy: 62.3 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

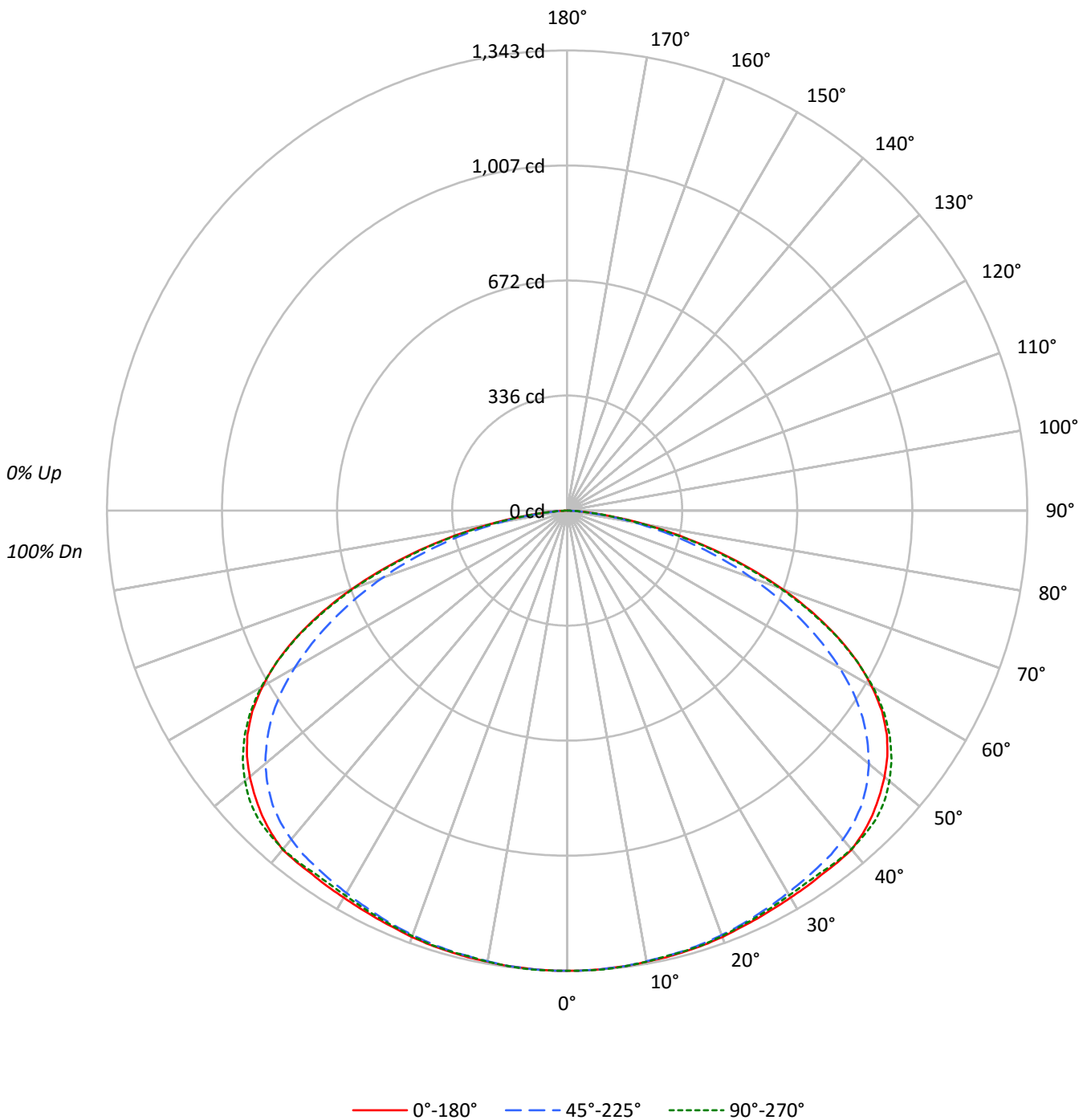
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	13524	13524	13524
5°	13560	13560	13575
10°	13669	13653	13669
15°	13887	13855	13871
20°	14191	14125	14158
25°	14593	14490	14542
30°	15164	14982	15073
35°	15935	15648	15859
40°	16978	16467	16959
45°	17928	17307	18150
50°	18940	18013	19233
55°	19995	18490	20186
60°	20678	18513	20772
65°	20716	17967	20640
70°	19681	16881	19451
75°	17277	14850	16853
80°	13279	11475	12832
85°	7024	5765	6666



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.9	2.5
10°-20°	376.6	7.3
20°-30°	604.9	11.7
30°-40°	806.2	15.6
40°-50°	956.9	18.5
50°-60°	978.0	18.9
60°-70°	797.4	15.4
70°-80°	435.0	8.4
80°-90°	81.1	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°	1109.4	21.5
0°-40°	1915.6	37.1
0°-60°	3850.5	74.6
0°-90°	5164.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5164.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1343	1343	1343	1343	1343	
5°	1342	1342	1342	1342	1343	128
15°	1332	1331	1329	1329	1331	377
25°	1314	1309	1304	1307	1309	608
35°	1296	1287	1273	1282	1290	815
45°	1259	1237	1215	1248	1275	972
55°	1139	1095	1053	1105	1150	1013
65°	870	812	754	810	866	853
75°	444	411	382	411	433	470
85°	61	58	50	56	58	87
90°	0	0	0	0	0	



TEST NUMBER: P241208

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1343.1	1343.1	1343.1	1343.1	1343.1
2.5°	1343.1	1343.1	1343.1	1343.1	1343.1
5°	1341.6	1341.6	1341.6	1341.6	1343.1
7.5°	1340.0	1340.0	1340.0	1340.0	1340.0
10°	1336.9	1336.9	1335.3	1335.3	1336.9
12.5°	1335.3	1333.8	1332.2	1332.2	1332.2
15°	1332.2	1330.7	1329.1	1329.1	1330.7
17.5°	1329.1	1326.0	1324.4	1324.4	1327.6
20°	1324.4	1319.8	1318.2	1319.8	1321.3
22.5°	1318.2	1315.1	1312.0	1313.5	1315.1
25°	1313.5	1308.9	1304.2	1307.3	1308.9
27.5°	1308.9	1302.6	1296.4	1299.5	1302.6
30°	1304.2	1296.4	1288.6	1291.7	1296.4
32.5°	1301.1	1291.7	1280.8	1287.0	1291.7
35°	1296.4	1287.0	1273.0	1282.4	1290.2
37.5°	1294.8	1280.8	1265.2	1277.7	1291.7
40°	1291.7	1271.5	1252.8	1273.0	1290.2
42.5°	1277.7	1257.4	1237.2	1262.1	1283.9
45°	1259.0	1237.2	1215.4	1248.1	1274.6
47.5°	1235.6	1212.2	1185.8	1224.7	1255.9
50°	1209.1	1179.5	1149.9	1192.0	1227.8
52.5°	1178.0	1140.6	1104.7	1153.0	1193.5
55°	1139.0	1095.4	1053.3	1104.7	1149.9
57.5°	1089.2	1040.8	991.0	1047.1	1096.9
60°	1026.8	975.4	919.3	977.0	1031.5
62.5°	955.2	897.5	839.8	900.6	953.6
65°	869.5	811.8	754.1	810.2	866.3
67.5°	772.8	716.8	665.3	715.2	766.6
70°	668.5	618.6	573.4	615.5	660.7
72.5°	557.8	515.8	478.4	514.2	546.9
75°	444.1	411.4	381.7	411.4	433.2
77.5°	333.4	308.5	288.3	311.6	324.1
80°	229.0	213.5	197.9	215.0	221.3
82.5°	135.6	129.3	116.9	127.8	130.9
85°	60.8	57.7	49.9	56.1	57.7
87.5°	10.9	9.3	7.8	9.3	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)