

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: P241212

Luminaire Tested: **1800-X-90-L35-4-W-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241212
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-L35-4-W-UNV-STD-X-X
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT
WIDE DISTRIBUTION
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5535.9 lumens
Efficiency: N/A
Efficacy: 66.8 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

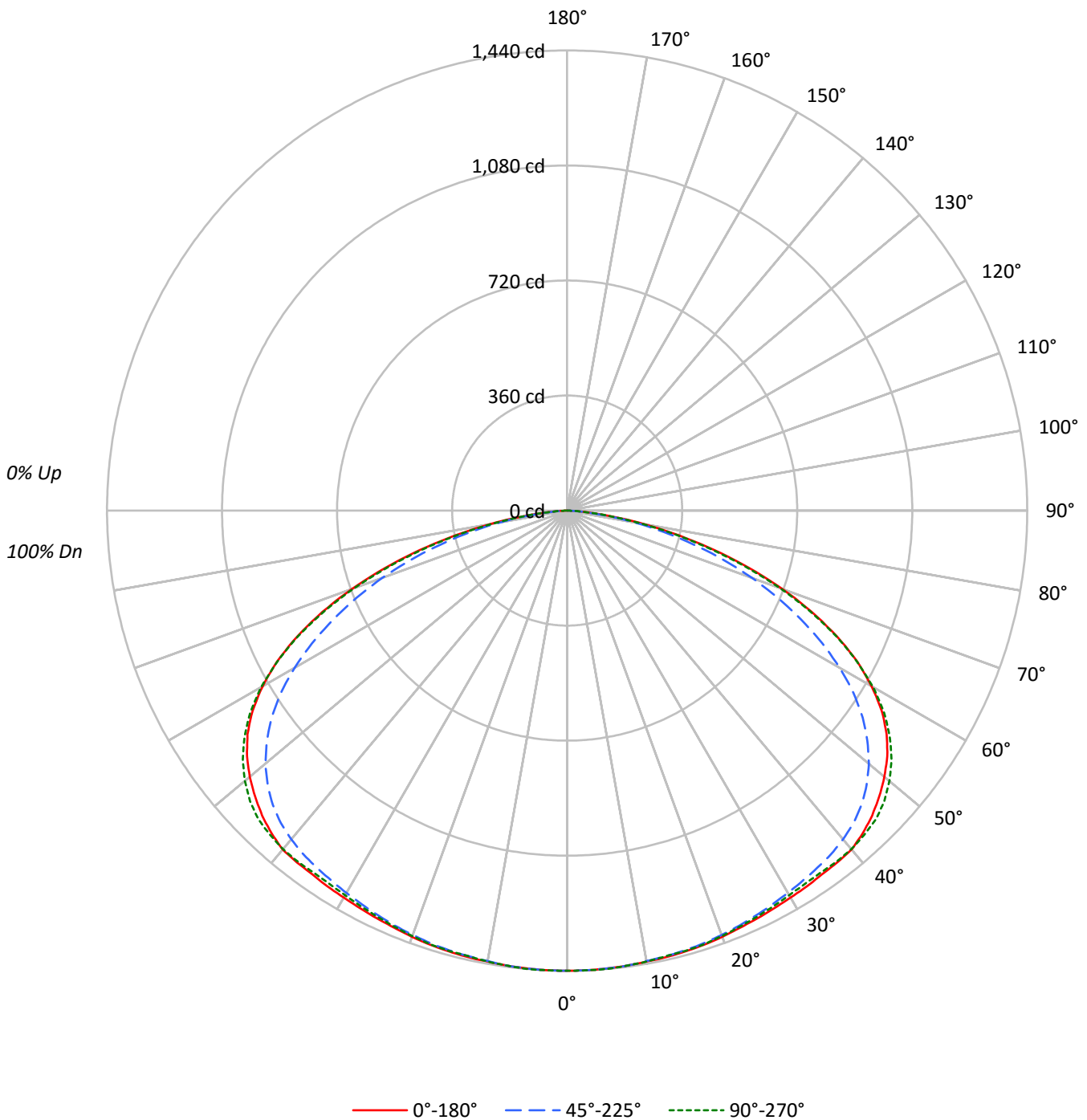
Input Watts (W): 82.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	14498	14498	14498
5°	14537	14537	14554
10°	14654	14636	14654
15°	14888	14852	14870
20°	15213	15142	15178
25°	15644	15533	15588
30°	16255	16061	16159
35°	17083	16775	17001
40°	18201	17653	18180
45°	19219	18553	19457
50°	20304	19310	20619
55°	21434	19823	21640
60°	22168	19846	22269
65°	22208	19263	22127
70°	21097	18097	20849
75°	18522	15919	18067
80°	14235	12299	13754
85°	7521	6181	7140



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.1	2.5
10°-20°	403.7	7.3
20°-30°	648.5	11.7
30°-40°	864.3	15.6
40°-50°	1025.8	18.5
50°-60°	1048.5	18.9
60°-70°	854.8	15.4
70°-80°	466.3	8.4
80°-90°	86.9	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°	1189.3	21.5
0°-40°	2053.6	37.1
0°-60°	4127.9	74.6
0°-90°	5535.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5535.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1440	1440	1440	1440	1440	
5°	1438	1438	1438	1438	1440	137
15°	1428	1426	1425	1425	1426	405
25°	1408	1403	1398	1401	1403	652
35°	1390	1380	1365	1375	1383	874
45°	1350	1326	1303	1338	1366	1042
55°	1221	1174	1129	1184	1233	1086
65°	932	870	808	869	929	914
75°	476	441	409	441	464	504
85°	65	62	54	60	62	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1439.9	1439.9	1439.9	1439.9	1439.9
2.5°	1439.9	1439.9	1439.9	1439.9	1439.9
5°	1438.2	1438.2	1438.2	1438.2	1439.9
7.5°	1436.5	1436.5	1436.5	1436.5	1436.5
10°	1433.2	1433.2	1431.5	1431.5	1433.2
12.5°	1431.5	1429.8	1428.2	1428.2	1428.2
15°	1428.2	1426.5	1424.8	1424.8	1426.5
17.5°	1424.8	1421.5	1419.8	1419.8	1423.2
20°	1419.8	1414.8	1413.1	1414.8	1416.5
22.5°	1413.1	1409.8	1406.5	1408.1	1409.8
25°	1408.1	1403.1	1398.1	1401.4	1403.1
27.5°	1403.1	1396.4	1389.8	1393.1	1396.4
30°	1398.1	1389.8	1381.4	1384.7	1389.8
32.5°	1394.8	1384.7	1373.0	1379.7	1384.7
35°	1389.8	1379.7	1364.7	1374.7	1383.1
37.5°	1388.1	1373.0	1356.3	1369.7	1384.7
40°	1384.7	1363.0	1343.0	1364.7	1383.1
42.5°	1369.7	1348.0	1326.3	1353.0	1376.4
45°	1349.7	1326.3	1302.9	1338.0	1366.4
47.5°	1324.6	1299.6	1271.2	1312.9	1346.3
50°	1296.2	1264.5	1232.7	1277.8	1316.3
52.5°	1262.8	1222.7	1184.3	1236.1	1279.5
55°	1221.0	1174.3	1129.2	1184.3	1232.7
57.5°	1167.6	1115.8	1062.4	1122.5	1175.9
60°	1100.8	1045.7	985.5	1047.3	1105.8
62.5°	1023.9	962.1	900.3	965.5	1022.3
65°	932.1	870.3	808.5	868.6	928.7
67.5°	828.5	768.4	713.3	766.7	821.8
70°	716.6	663.1	614.7	659.8	708.2
72.5°	598.0	552.9	512.8	551.2	586.3
75°	476.1	441.0	409.2	441.0	464.4
77.5°	357.5	330.7	309.0	334.1	347.4
80°	245.5	228.8	212.1	230.5	237.2
82.5°	145.3	138.6	125.3	137.0	140.3
85°	65.1	61.8	53.5	60.1	61.8
87.5°	11.7	10.0	8.4	10.0	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)