

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: P241196

Luminaire Tested: **1800-X-90-L35-2-W-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241196
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-L35-2-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: 4118.1 lumens
Efficiency: N/A
Efficacy: 76.4 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

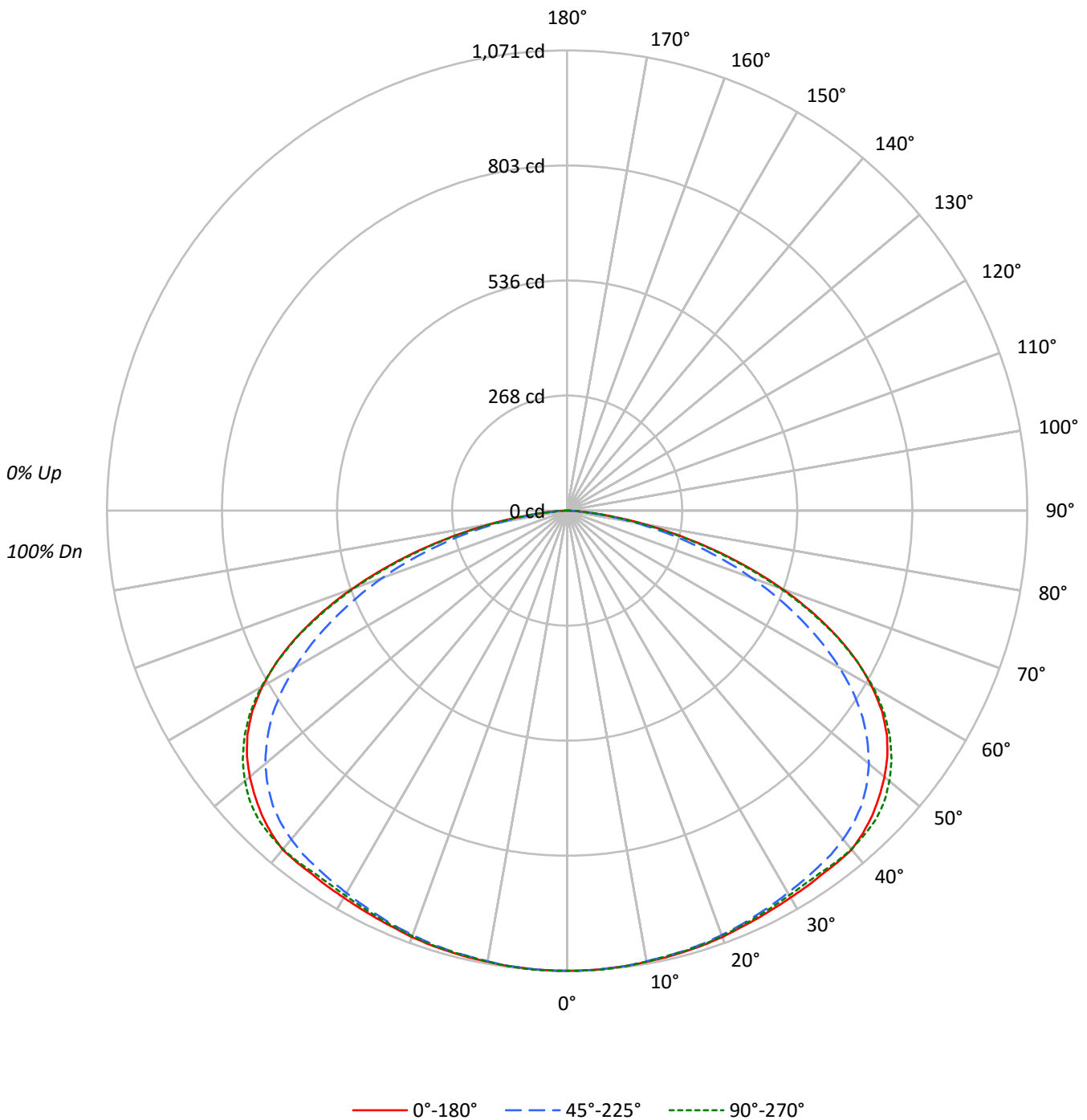
Input Watts (W): 53.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	10785	10785	10785
5°	10814	10814	10826
10°	10900	10888	10900
15°	11075	11049	11062
20°	11317	11264	11291
25°	11638	11554	11597
30°	12092	11948	12020
35°	12707	12479	12646
40°	13540	13131	13523
45°	14297	13801	14473
50°	15104	14364	15337
55°	15945	14746	16098
60°	16491	14763	16566
65°	16520	14329	16461
70°	15694	13463	15512
75°	13776	11842	13437
80°	10594	9150	10229
85°	5603	4598	5314



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	2.5
10°-20°	300.3	7.3
20°-30°	482.4	11.7
30°-40°	642.9	15.6
40°-50°	763.1	18.5
50°-60°	780.0	18.9
60°-70°	635.9	15.4
70°-80°	346.9	8.4
80°-90°	64.7	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°	884.7	21.5
0°-40°	1527.6	37.1
0°-60°	3070.7	74.6
0°-90°	4118.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4118.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1071	1071	1071	1071	1071	
5°	1070	1070	1070	1070	1071	102
15°	1062	1061	1060	1060	1061	301
25°	1048	1044	1040	1042	1044	485
35°	1034	1026	1015	1023	1029	650
45°	1004	987	969	995	1016	775
55°	908	874	840	881	917	808
65°	693	647	601	646	691	680
75°	354	328	304	328	345	375
85°	48	46	40	45	46	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1071.1	1071.1	1071.1	1071.1	1071.1
2.5°	1071.1	1071.1	1071.1	1071.1	1071.1
5°	1069.9	1069.9	1069.9	1069.9	1071.1
7.5°	1068.6	1068.6	1068.6	1068.6	1068.6
10°	1066.1	1066.1	1064.9	1064.9	1066.1
12.5°	1064.9	1063.6	1062.4	1062.4	1062.4
15°	1062.4	1061.2	1059.9	1059.9	1061.2
17.5°	1059.9	1057.4	1056.2	1056.2	1058.7
20°	1056.2	1052.5	1051.2	1052.5	1053.7
22.5°	1051.2	1048.7	1046.2	1047.5	1048.7
25°	1047.5	1043.8	1040.0	1042.5	1043.8
27.5°	1043.8	1038.8	1033.8	1036.3	1038.8
30°	1040.0	1033.8	1027.6	1030.1	1033.8
32.5°	1037.5	1030.1	1021.4	1026.4	1030.1
35°	1033.8	1026.4	1015.2	1022.6	1028.8
37.5°	1032.6	1021.4	1009.0	1018.9	1030.1
40°	1030.1	1013.9	999.0	1015.2	1028.8
42.5°	1018.9	1002.8	986.6	1006.5	1023.9
45°	1004.0	986.6	969.2	995.3	1016.4
47.5°	985.4	966.7	945.6	976.7	1001.5
50°	964.2	940.6	917.0	950.6	979.1
52.5°	939.4	909.6	881.0	919.5	951.8
55°	908.3	873.5	840.0	881.0	917.0
57.5°	868.6	830.0	790.3	835.0	874.8
60°	818.9	777.9	733.1	779.1	822.6
62.5°	761.7	715.7	669.7	718.2	760.5
65°	693.4	647.4	601.4	646.1	690.9
67.5°	616.3	571.6	530.6	570.3	611.3
70°	533.1	493.3	457.3	490.8	526.9
72.5°	444.8	411.3	381.5	410.0	436.1
75°	354.1	328.0	304.4	328.0	345.4
77.5°	265.9	246.0	229.9	248.5	258.5
80°	182.7	170.2	157.8	171.5	176.4
82.5°	108.1	103.1	93.2	101.9	104.4
85°	48.5	46.0	39.8	44.7	46.0
87.5°	8.7	7.5	6.2	7.5	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)