

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: P394019

Luminaire Tested: **146-28-L3-830**

Issue Date: 4/2/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P394019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33614)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 146-28-L3-830  
Description: SHAPER 106 FABRIQUE ROUND CYLINDER PENDANT  
28 INCH HEIGHT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

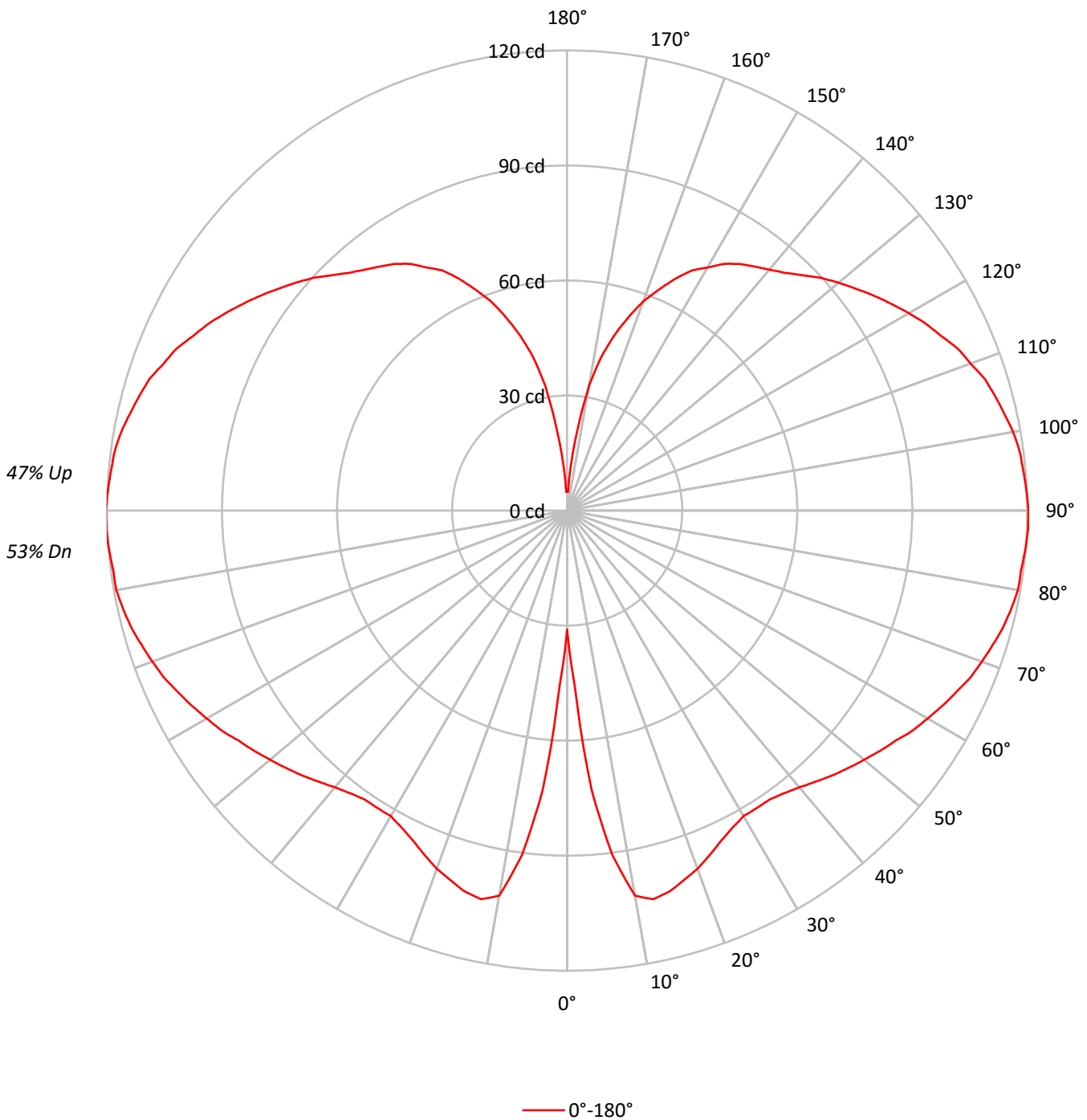
Lumens per Lamp: N/A  
Luminaire Lumens: 1284.9 lumens  
Efficiency: N/A  
Efficacy: 63.0 lumens/watt  
Spacing Criteria (0/90/45): 3.25 / 3.25 / 3.15  
Luminous Opening: Vertical Cylinder (Dia: 0.83' x H: 2.33')  
CIE Type: General Diffuse

Input Watts (W): 20.4  
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



TEST NUMBER: P394019  
CATALOG NUMBER: 146-28-L3-830

### Luminous Intensity Polar Plot





TEST NUMBER: P394019  
 CATALOG NUMBER: 146-28-L3-830

**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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	58	58	58	53
1	93	87	81	76	86	80	75	70	67	63	59	55	52	49	44	41	39	34
2	83	73	65	58	76	67	60	54	56	50	45	45	41	37	36	33	30	25
3	75	63	54	46	68	58	50	43	48	41	36	39	34	30	30	27	23	19
4	68	55	45	38	62	50	42	35	42	35	30	34	28	24	26	22	19	15
5	62	48	39	32	56	44	36	29	37	30	25	30	24	20	23	19	16	12
6	57	43	34	27	52	39	31	25	33	26	21	27	21	17	21	17	13	10
7	52	38	30	23	48	35	27	22	30	23	18	24	19	15	19	15	12	9
8	48	35	26	20	44	32	24	19	27	20	16	22	17	13	17	13	10	8
9	45	32	23	18	41	29	22	17	24	18	14	20	15	12	16	12	9	7
10	42	29	21	16	38	27	19	15	22	17	12	18	14	10	15	11	8	6

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	612
5°	1105
10°	1255
15°	1075
20°	909
25°	777
30°	686
35°	634
40°	608
45°	597
50°	591
55°	591
60°	597
65°	605
70°	615
75°	627
80°	640
85°	650



TEST NUMBER: P394019  
 CATALOG NUMBER: 146-28-L3-830

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	7.8	0.6
10°-20°	28.9	2.2
20°-30°	44.0	3.4
30°-40°	58.1	4.5
40°-50°	75.7	5.9
50°-60°	94.1	7.3
60°-70°	111.2	8.7
70°-80°	124.3	9.7
80°-90°	130.8	10.2
90°-100°	130.2	10.1
100°-110°	122.1	9.5
110°-120°	107.0	8.3
120°-130°	87.7	6.8
130°-140°	67.5	5.3
140°-150°	49.2	3.8
150°-160°	30.9	2.4
160°-170°	13.6	1.1
170°-180°	1.9	0.1
0°-30°	80.7	6.3
0°-40°	138.8	10.8
0°-60°	308.6	24.0
0°-90°	674.8	52.5
90°-120°	359.3	28.0
90°-150°	563.7	43.9
90°-180°	610.0	47.5
0°-180°	1284.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	31	
5°	73	8
15°	103	29
25°	95	44
35°	92	58
45°	98	76
55°	105	94
65°	112	111
75°	118	124
85°	120	98
90°	120	66
95°	119	97
105°	116	122
115°	108	107
125°	98	88
135°	87	67
145°	78	49
155°	67	31
165°	47	14
175°	13	2
180°	5	



TEST NUMBER: P394019  
CATALOG NUMBER: 146-28-L3-830

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	31.0
2.5°	45.8
5°	73.2
7.5°	90.7
10°	102.0
12.5°	103.8
15°	102.9
17.5°	101.1
20°	99.4
22.5°	97.2
25°	95.0
27.5°	93.3
30°	92.0
32.5°	92.0
35°	92.0
37.5°	92.9
40°	94.2
42.5°	95.9
45°	97.7
47.5°	99.4
50°	101.1
52.5°	102.9
55°	104.6
57.5°	106.8
60°	108.5
62.5°	110.3
65°	112.0
67.5°	113.8
70°	115.1
72.5°	116.4
75°	117.7
77.5°	118.6
80°	119.4
82.5°	119.4
85°	119.9
87.5°	120.3
90°	120.3
92.5°	119.9
95°	119.4
97.5°	119.0
100°	118.1
102.5°	116.8
105°	115.5
107.5°	114.2
110°	112.0



TEST NUMBER: P394019  
CATALOG NUMBER: 146-28-L3-830

**CANDELA DISTRIBUTION (continued):**

	0°
112.5°	110.3
115°	107.7
117.5°	105.5
120°	102.9
122.5°	100.3
125°	97.7
127.5°	95.0
130°	92.4
132.5°	89.8
135°	86.8
137.5°	84.1
140°	82.0
142.5°	80.2
145°	78.5
147.5°	76.3
150°	73.2
152.5°	70.6
155°	66.7
157.5°	62.3
160°	58.0
162.5°	52.7
165°	47.1
167.5°	41.0
170°	33.1
172.5°	22.2
175°	13.1
177.5°	4.8
180°	5.2

(END OF REPORT)