

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: P33846

Luminaire Tested: **273-18-S-L3/835-UNV-NA**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P33846
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 273-18-S-L3/835-UNV-NA
Description: SHAPER 273 SERIES ARCHITECTURAL LUMINOUS DRUM, 18 INCH.
Light Source: (36) COOPER LIGHTING 3500K LEDS
Ballast/Driver: (1) ROHS ELECTRONIC DRIVER
LE1020-24

Summary

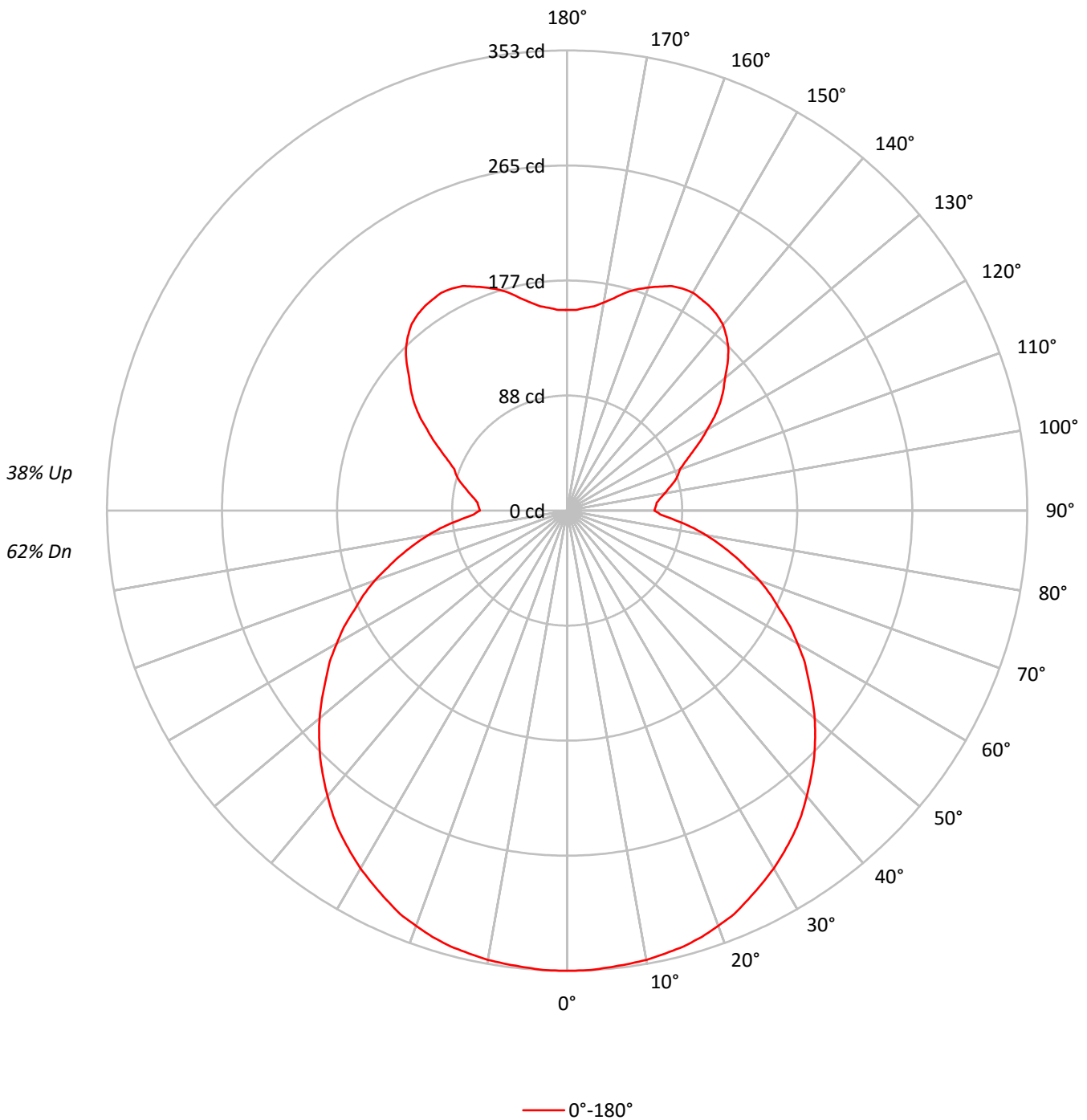
Lumens per Lamp: N/A
Luminaire Lumens: 2097.5 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.33 / 1.47
Luminous Opening: Vertical Cylinder (Dia: 1.5' x H: 0.5')
CIE Type: Semi-Direct

Input Watts (W): 24.1
Input Voltage (V): 119.98
Input Current (A_{in}): 0.2024
Voltage Rise (V): NR
Power Factor: 0.9985
Total Harmonic Distortion (THDi): 9.55
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: HR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P33846

CATALOG NUMBER: 273-18-S-L3/835-UNV-NA

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	98	93	88	84	92	87	83	79	76	73	70	66	63	61	56	54	53	48
2	89	80	73	67	83	75	69	63	65	60	56	56	53	49	48	45	43	38
3	81	70	62	55	75	65	58	52	57	51	46	49	45	41	42	38	35	32
4	73	61	53	46	68	58	50	44	50	44	39	43	38	34	37	33	30	26
5	67	54	46	39	62	51	43	37	45	38	33	39	33	29	33	29	26	23
6	62	49	40	34	57	46	38	32	40	34	29	35	30	25	30	26	22	20
7	57	44	35	29	53	41	33	28	36	30	25	32	26	22	27	23	20	17
8	53	40	31	26	49	37	30	25	33	27	22	29	24	20	25	21	18	15
9	49	36	28	23	46	34	27	22	30	24	20	26	21	18	23	19	16	14
10	46	33	26	20	43	31	24	20	28	22	18	24	19	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	2150
5°	2075
10°	2014
15°	1959
20°	1903
25°	1846
30°	1791
35°	1737
40°	1677
45°	1621
50°	1561
55°	1494
60°	1432
65°	1358
70°	1291
75°	1202
80°	1112
85°	991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.5	1.6
10°-20°	97.7	4.7
20°-30°	151.9	7.2
30°-40°	189.6	9.0
40°-50°	206.8	9.9
50°-60°	202.6	9.7
60°-70°	179.0	8.5
70°-80°	139.6	6.7
80°-90°	92.3	4.4
90°-100°	76.5	3.6
100°-110°	89.3	4.3
110°-120°	105.8	5.0
120°-130°	127.3	6.1
130°-140°	134.3	6.4
140°-150°	119.5	5.7
150°-160°	87.6	4.2
160°-170°	49.2	2.3
170°-180°	15.1	0.7
0°-30°	283.1	13.5
0°-40°	472.7	22.5
0°-60°	882.1	42.1
0°-90°	1293.0	61.6
90°-120°	271.6	12.9
90°-150°	652.7	31.1
90°-180°	805.0	38.4
0°-180°	2097.5	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	353	
5°	352	34
15°	346	98
25°	329	152
35°	303	190
45°	268	207
55°	226	203
65°	180	179
75°	132	140
85°	83	73
90°	67	38
95°	69	58
105°	85	89
115°	106	106
125°	143	127
135°	175	134
145°	191	120
155°	190	88
165°	173	49
175°	156	15
180°	154	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	353
2.5°	353
5°	352
7.5°	351
10°	350
12.5°	348
15°	346
17.5°	343
20°	339
22.5°	335
25°	329
27.5°	323
30°	317
32.5°	310
35°	303
37.5°	295
40°	286
42.5°	277
45°	268
47.5°	258
50°	248
52.5°	237
55°	226
57.5°	216
60°	204
62.5°	193
65°	180
67.5°	169
70°	157
72.5°	144
75°	132
77.5°	120
80°	108
82.5°	96
85°	83
87.5°	72
90°	67
92.5°	68
95°	69
97.5°	72
100°	76
102.5°	80
105°	85
107.5°	89
110°	92

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CANDELA DISTRIBUTION (continued):

	0°
112.5°	98
115°	106
117.5°	115
120°	124
122.5°	134
125°	143
127.5°	151
130°	158
132.5°	167
135°	175
137.5°	181
140°	186
142.5°	189
145°	191
147.5°	192
150°	193
152.5°	192
155°	190
157.5°	186
160°	182
162.5°	178
165°	173
167.5°	167
170°	162
172.5°	158
175°	156
177.5°	154
180°	154

(END OF REPORT)