

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: P34354

Luminaire Tested: **161-37-W-L4/835-UNV**

Test Date: 12/01/15

Test Information

Test Method: LM-79-08
Report Number: P34354
Test Lab: INNOVATION CENTER-P3
Test Date: 12/01/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 161-37-W-L4/835-UNV
Description: SHAPER 161 SERIES 37" FABRIQUE SQUARE CYLINDER WALL SCONCE LUMINAIRE.
Light Source: 18 CKTS 3500K LEDS
12441843
Ballast/Driver: (1) PHILIPS ELECTRONIC DRIVER
LEDINTA2000C24DOM

Summary

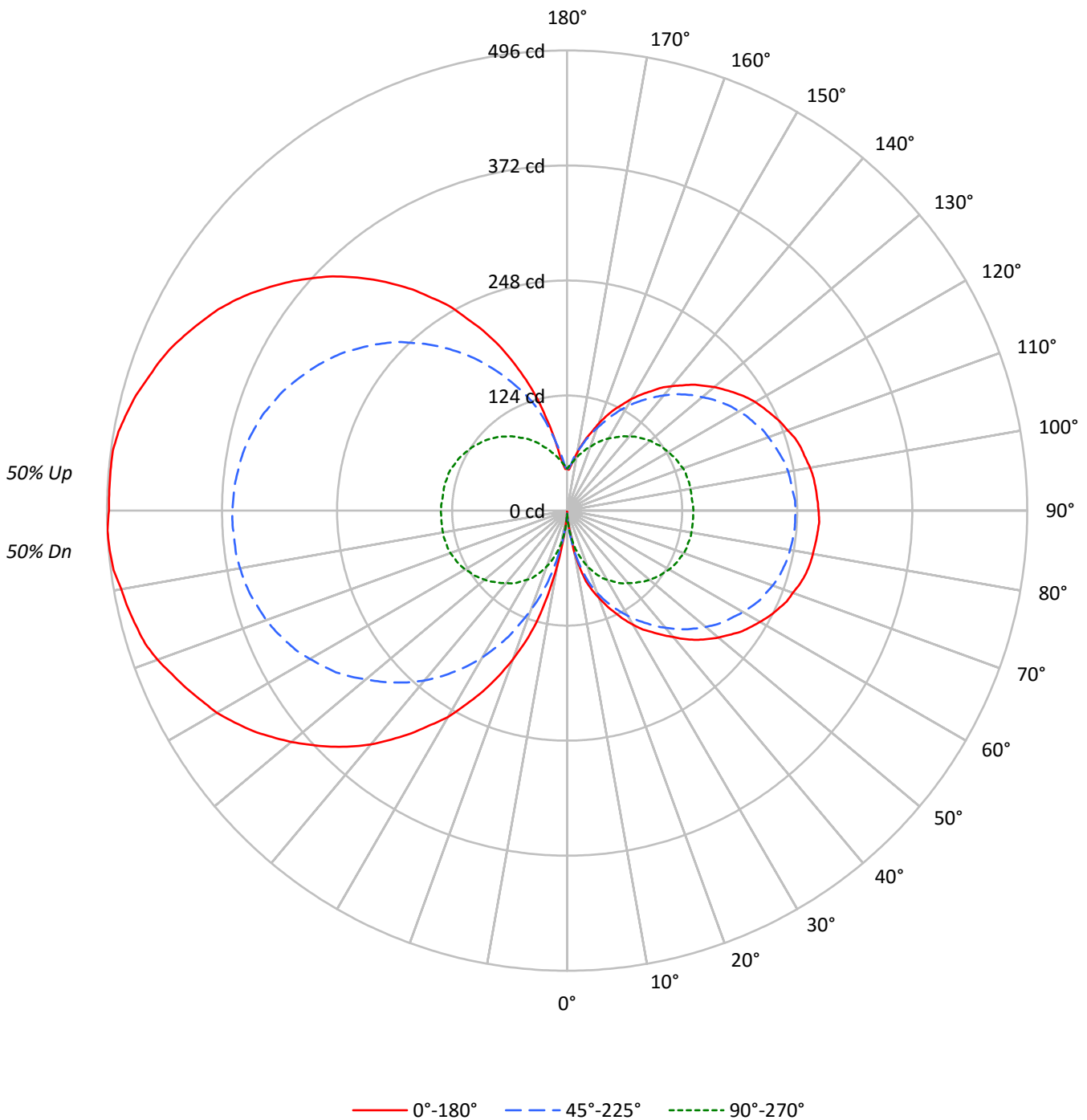
Lumens per Lamp: N/A
Luminaire Lumens: 2828.5 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 12.48 / 8.75 / 10.15
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 0.67' x H: 3.08')
CIE Type: General Diffuse

Input Watts (W): 31.1
Input Voltage (V): 120.1
Input Current (A_{in}): 0.260
Voltage Rise (V): NR
Power Factor: 0.9985
Total Harmonic Distortion (THDi): 7.91
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: HR
Ambient Temperature (°C): 25.0
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	107	107	107	107	99	99	99	99	83	83	83		69	69	69		56	56	56	50
1	92	85	79	74	84	78	73	68	65	61	57		52	49	46		41	38	36	31
2	82	72	63	56	74	65	58	51	54	48	43		43	38	34		33	29	26	21
3	73	61	52	44	66	56	47	40	45	39	33		36	31	27		27	23	20	16
4	66	53	43	36	60	48	39	33	39	32	27		31	26	21		23	19	16	12
5	60	46	37	29	54	42	34	27	34	27	22		27	22	17		20	16	13	9
6	55	41	32	25	50	37	29	23	30	24	19		24	19	15		18	14	11	7
7	51	37	27	21	46	33	25	19	27	21	16		22	16	12		16	12	9	6
8	47	33	24	18	42	30	22	17	25	18	14		19	14	11		15	11	8	5
9	43	30	21	16	39	27	20	14	22	16	12		18	13	9		13	9	7	4
10	40	27	19	14	37	25	17	13	20	14	10		16	11	8		12	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	145	145	145
5°	415	457	381
10°	1246	636	1544
15°	1769	721	2710
20°	1921	755	3266
25°	2049	764	3640
30°	2164	759	3916
35°	2232	751	4088
40°	2306	736	4262
45°	2399	728	4384
50°	2465	727	4490
55°	2532	725	4597
60°	2580	723	4687
65°	2635	721	4755
70°	2676	718	4856
75°	2726	711	4930
80°	2756	710	4999
85°	2796	708	5107



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.3	0.1
10°-20°	21.1	0.7
20°-30°	57.5	2.0
30°-40°	105.7	3.7
40°-50°	159.7	5.6
50°-60°	212.9	7.5
60°-70°	258.7	9.1
70°-80°	291.2	10.3
80°-90°	306.5	10.8
90°-100°	305.3	10.8
100°-110°	287.5	10.2
110°-120°	253.8	9.0
120°-130°	208.9	7.4
130°-140°	157.9	5.6
140°-150°	106.8	3.8
150°-160°	61.1	2.2
160°-170°	26.0	0.9
170°-180°	5.5	0.2
0°-30°	80.9	2.9
0°-40°	186.6	6.6
0°-60°	559.2	19.8
0°-90°	1415.6	50.0
90°-120°	846.7	29.9
90°-150°	1320.3	46.7
90°-180°	1413.0	50.0
0°-180°	2828.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3	3	3	3	3	
5°	12	16	17	14	11	2
15°	79	71	50	78	121	22
25°	121	113	76	150	215	57
35°	160	148	95	212	293	101
45°	197	181	109	262	360	152
55°	228	208	122	304	414	204
65°	251	229	131	334	453	249
75°	266	241	135	353	481	281
85°	271	246	136	360	495	221
90°	271	246	136	361	494	149
95°	269	244	135	359	494	219
105°	261	237	134	348	481	275
115°	244	223	130	326	452	242
125°	221	203	122	296	411	198
135°	192	177	111	257	357	148
145°	157	146	97	210	291	99
155°	120	112	82	159	214	56
165°	81	79	65	107	125	23
175°	49	51	51	56	50	5
180°	45	45	45	45	45	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	3	3	3	3	3	3	3	3	3
2.5°	3	4	6	8	9	7	6	3	1
5°	12	13	16	17	17	16	14	10	11
7.5°	26	28	29	29	25	27	25	25	31
10°	46	46	44	39	34	39	41	46	57
12.5°	63	63	58	50	43	52	59	64	88
15°	79	78	71	60	50	64	78	80	121
17.5°	90	90	84	70	57	73	97	97	147
20°	100	101	94	79	64	85	114	115	170
22.5°	111	111	104	87	70	95	131	137	193
25°	121	121	113	94	76	106	150	158	215
27.5°	132	131	122	101	82	115	166	178	235
30°	142	141	131	108	86	124	183	200	257
32.5°	152	151	140	114	90	132	198	220	274
35°	160	160	148	121	95	138	212	239	293
37.5°	169	170	157	127	99	145	226	259	311
40°	178	179	165	133	102	151	239	278	329
42.5°	188	188	173	139	106	157	251	297	345
45°	197	197	181	144	109	164	262	313	360
47.5°	205	205	188	149	113	170	273	330	374
50°	213	213	195	154	116	175	283	344	388
52.5°	220	220	202	159	119	180	294	358	401
55°	228	227	208	164	122	185	304	370	414
57.5°	234	233	213	168	124	190	312	381	425
60°	240	240	219	172	127	194	320	392	436
62.5°	246	246	224	175	129	197	328	402	444
65°	251	251	229	179	131	201	334	411	453
67.5°	256	255	232	181	132	204	340	419	461
70°	259	259	236	184	134	207	345	427	470
72.5°	263	263	239	186	135	209	349	433	477
75°	266	265	241	188	135	210	353	439	481
77.5°	268	268	243	189	136	212	356	443	485
80°	269	269	244	190	136	212	358	446	488
82.5°	270	270	245	190	136	213	360	449	493
85°	271	270	246	190	136	213	360	450	495
87.5°	272	271	246	191	136	214	361	452	496
90°	271	271	246	191	136	214	361	451	494
92.5°	270	271	246	190	136	214	360	450	494
95°	269	269	244	189	135	214	359	448	494
97.5°	268	268	243	189	135	213	357	445	494
100°	266	266	242	188	135	212	355	441	491
102.5°	263	263	240	186	135	212	352	437	486
105°	261	261	237	185	134	210	348	431	481
107.5°	258	257	234	183	134	208	344	424	474
110°	253	253	231	181	133	206	338	417	468



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	249	249	228	178	131	204	333	408	461
115°	244	244	223	175	130	201	326	399	452
117.5°	239	239	219	172	128	198	319	390	443
120°	234	234	214	169	126	194	312	380	434
122.5°	228	227	209	165	124	190	304	370	423
125°	221	221	203	161	122	186	296	359	411
127.5°	214	214	197	157	119	182	286	347	398
130°	207	207	190	152	117	177	277	335	385
132.5°	199	200	184	148	114	175	267	322	371
135°	192	191	177	143	111	169	257	308	357
137.5°	183	183	170	137	108	161	245	296	341
140°	175	176	162	132	104	155	234	283	325
142.5°	167	167	154	126	101	150	222	271	308
145°	157	158	146	120	97	144	210	257	291
147.5°	148	148	138	115	93	136	198	243	272
150°	139	139	130	109	90	130	185	229	255
152.5°	129	129	121	102	86	123	172	213	233
155°	120	119	112	97	82	116	159	197	214
157.5°	110	110	103	90	78	108	146	180	193
160°	100	100	95	84	73	100	134	161	170
162.5°	89	91	87	78	70	93	121	143	148
165°	81	82	79	72	65	86	107	123	125
167.5°	72	73	71	66	62	78	92	102	100
170°	64	64	65	61	58	70	78	81	79
172.5°	56	57	58	56	54	62	66	63	59
175°	49	50	51	51	51	54	56	53	50
177.5°	44	45	46	47	48	48	47	46	45
180°	45	45	45	45	45	45	45	45	45

(END OF REPORT)