

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: P34355

Luminaire Tested: **161-49-W-L5/835-UNV**

Test Date: 12/01/15

Test Information

Test Method: LM-79-08
Report Number: P34355
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: 161-49-W-L5/835-UNV
Description: SHAPER 161 SERIES 49" FABRIQUE SQUARE CYLINDER WALL SCONCE LUMINAIRE.
Light Source: 26 CKTS 3500K LEDS
12453372
Ballast/Driver: (1) PHILIPS ELECTRONIC DRIVER
LEDINTA2000C24DOM

Summary

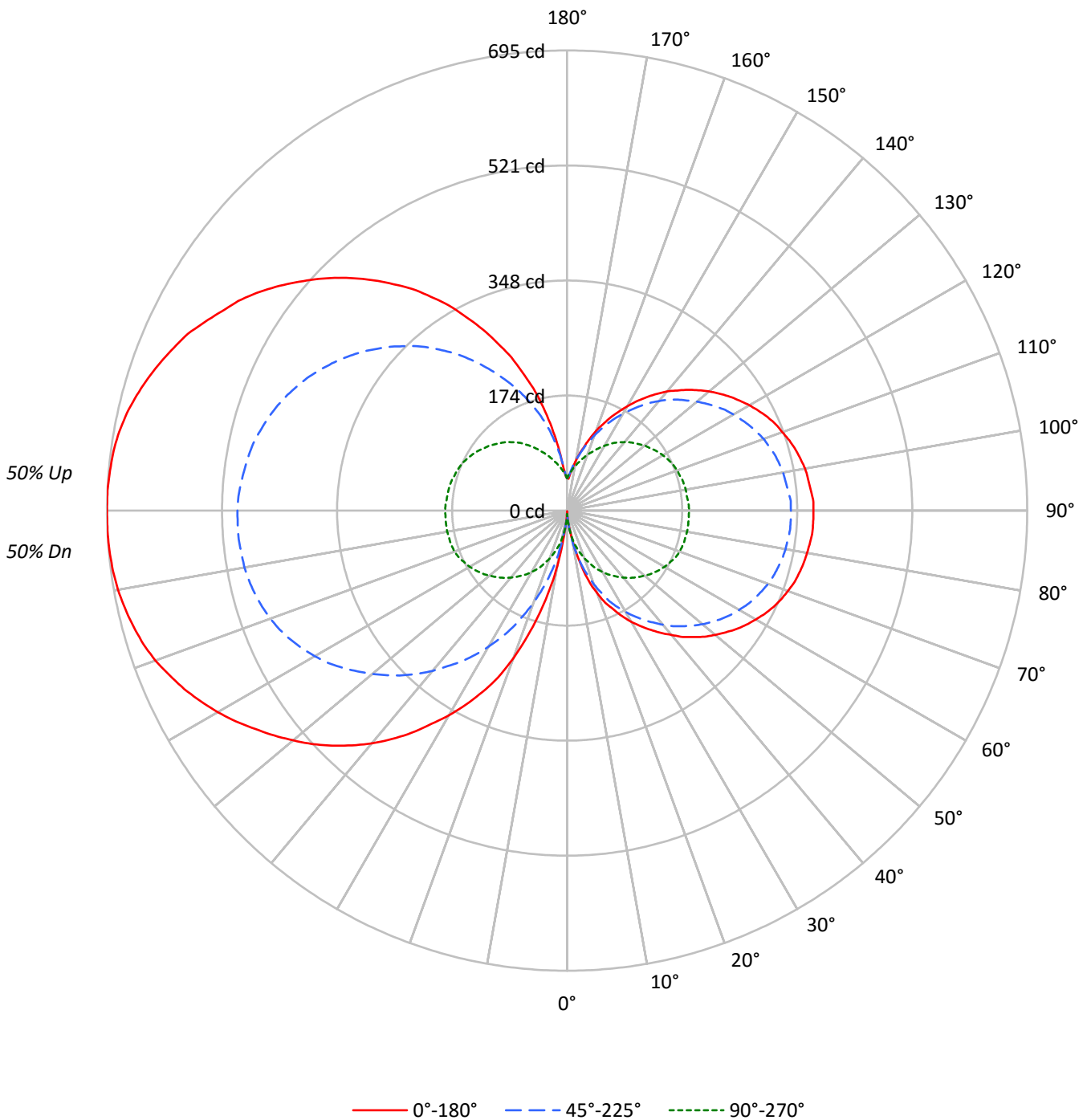
Lumens per Lamp: N/A
Luminaire Lumens: 3870.9 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Spacing Criteria (0/90/45): 11.74 / 8.12 / 9.51
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 0.67' x H: 4.08')
CIE Type: General Diffuse

Input Watts (W): 41.9
Input Voltage (V): 120.0
Input Current (A_{in}): 0.349
Voltage Rise (V): NR
Power Factor: 0.9986
Total Harmonic Distortion (THDi): 6.91
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	71	63	56	74	65	58	51	53	48	43	43	38	34	33	29	26	21
3	73	61	51	44	66	56	47	40	45	39	33	36	31	26	27	23	20	15
4	66	53	43	36	60	48	39	33	39	32	27	31	25	21	23	19	16	12
5	60	46	36	29	54	42	33	27	34	27	22	27	22	17	20	16	13	9
6	55	41	31	25	50	37	29	23	30	24	18	24	19	14	18	14	10	7
7	51	36	27	21	46	33	25	19	27	20	16	21	16	12	16	12	9	6
8	47	33	24	18	42	30	22	16	24	18	13	19	14	10	15	11	7	5
9	43	30	21	16	39	27	19	14	22	16	12	18	13	9	13	9	6	4
10	40	27	19	14	37	25	17	13	20	14	10	16	11	8	12	8	6	3

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	242	242	242
5°	507	469	507
10°	1064	623	1986
15°	1747	703	3038
20°	2123	727	3783
25°	2273	740	4186
30°	2392	741	4402
35°	2460	741	4584
40°	2523	740	4727
45°	2596	739	4826
50°	2651	739	4903
55°	2703	740	4982
60°	2745	741	5082
65°	2789	740	5173
70°	2820	740	5259
75°	2847	733	5318
80°	2872	728	5378
85°	2911	725	5432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.7	0.1
10°-20°	26.9	0.7
20°-30°	76.5	2.0
30°-40°	141.6	3.7
40°-50°	216.3	5.6
50°-60°	291.2	7.5
60°-70°	357.0	9.2
70°-80°	402.9	10.4
80°-90°	424.4	11.0
90°-100°	421.8	10.9
100°-110°	396.1	10.2
110°-120°	348.7	9.0
120°-130°	285.6	7.4
130°-140°	214.4	5.5
140°-150°	143.3	3.7
150°-160°	80.8	2.1
160°-170°	34.0	0.9
170°-180°	6.8	0.2
0°-30°	106.1	2.7
0°-40°	247.7	6.4
0°-60°	755.3	19.5
0°-90°	1939.6	50.1
90°-120°	1166.6	30.1
90°-150°	1809.8	46.8
90°-180°	1931.0	49.9
0°-180°	3870.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5	5	5	5	5	
5°	16	18	20	19	16	2
15°	92	86	60	101	160	27
25°	164	151	93	195	302	77
35°	220	202	120	278	410	139
45°	270	247	143	352	502	209
55°	312	285	162	414	575	280
65°	344	313	176	461	638	341
75°	363	330	183	488	678	384
85°	372	338	184	498	694	303
90°	372	338	184	498	695	204
95°	369	335	183	494	693	301
105°	357	325	180	478	673	377
115°	334	304	173	448	632	331
125°	300	274	160	405	573	269
135°	258	237	144	351	497	200
145°	209	193	125	288	409	132
155°	155	145	101	216	302	72
165°	100	98	78	144	186	29
175°	57	59	58	68	65	6
180°	49	49	49	49	49	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	5	5	5	5	5	5	5	5	5
2.5°	5	6	8	9	11	10	7	4	1
5°	16	15	18	18	20	20	19	13	16
7.5°	29	30	32	32	30	32	32	36	43
10°	45	48	49	46	40	49	53	61	84
12.5°	67	69	68	60	51	65	78	86	122
15°	92	91	86	72	60	79	101	112	160
17.5°	115	112	102	85	68	94	124	143	198
20°	133	131	119	97	77	108	148	171	237
22.5°	151	149	134	109	84	123	170	197	273
25°	164	165	151	120	93	136	195	219	302
27.5°	180	179	164	132	100	149	216	244	330
30°	194	194	177	142	107	160	237	269	357
32.5°	207	206	189	151	114	172	258	294	382
35°	220	221	202	160	120	184	278	320	410
37.5°	233	233	213	169	126	193	296	345	435
40°	245	246	225	177	132	203	316	369	459
42.5°	259	259	237	185	138	215	334	394	481
45°	270	271	247	194	143	225	352	418	502
47.5°	282	282	257	201	148	231	368	439	522
50°	292	292	267	208	153	240	384	461	540
52.5°	302	303	276	215	158	248	399	483	558
55°	312	313	285	221	162	257	414	502	575
57.5°	321	322	293	227	166	264	428	522	593
60°	329	330	300	233	170	271	440	540	609
62.5°	337	338	307	237	173	277	451	556	624
65°	344	345	313	242	176	282	461	572	638
67.5°	350	350	318	246	179	287	470	585	650
70°	355	355	323	249	181	291	477	597	662
72.5°	360	360	327	252	182	293	483	608	671
75°	363	364	330	254	183	296	488	616	678
77.5°	366	367	333	256	183	297	492	622	684
80°	368	369	335	257	184	298	495	627	689
82.5°	370	371	336	258	184	299	496	630	692
85°	372	373	338	259	184	299	498	632	694
87.5°	372	374	338	260	184	300	498	633	695
90°	372	373	338	259	184	300	498	632	695
92.5°	372	372	338	259	184	299	497	630	695
95°	369	370	335	257	183	297	494	626	693
97.5°	367	368	333	256	182	296	491	623	691
100°	365	365	331	254	182	295	488	618	687
102.5°	361	362	328	252	181	293	484	611	681
105°	357	358	325	250	180	290	478	603	673
107.5°	352	353	320	247	178	288	472	594	664
110°	346	347	316	243	177	284	465	584	654



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	341	341	310	240	175	280	457	572	643
115°	334	334	304	235	173	276	448	561	632
117.5°	326	327	297	230	170	270	439	548	617
120°	318	318	290	225	167	265	428	535	602
122.5°	309	309	283	220	164	259	417	520	589
125°	300	301	274	214	160	253	405	504	573
127.5°	290	290	265	208	156	246	393	487	555
130°	280	280	256	201	153	240	379	470	536
132.5°	269	270	246	195	148	232	366	450	517
135°	258	259	237	188	144	224	351	432	497
137.5°	246	247	227	181	140	216	337	411	476
140°	235	234	216	173	135	208	321	391	454
142.5°	222	222	205	165	130	199	304	371	431
145°	209	209	193	156	125	190	288	349	409
147.5°	196	196	181	148	119	180	270	328	383
150°	182	182	169	139	113	171	252	308	358
152.5°	168	169	157	131	107	161	234	286	329
155°	155	155	145	122	101	150	216	265	302
157.5°	141	141	133	113	95	140	199	245	273
160°	128	128	121	104	90	130	180	223	246
162.5°	114	115	109	96	84	119	162	200	214
165°	100	102	98	87	78	108	144	174	186
167.5°	89	90	87	80	73	99	125	148	153
170°	77	78	77	72	68	88	105	119	121
172.5°	66	68	68	65	63	76	86	91	91
175°	57	58	59	59	58	64	68	67	65
177.5°	48	50	52	53	54	55	54	53	52
180°	49	49	49	49	49	49	49	49	49

(END OF REPORT)