

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: P34352

Luminaire Tested: **160-49-W-L5/835-UNV**

Test Date: 08/23/15

Test Information

Test Method: LM-79-08
Report Number: P34352
Test Lab: INNOVATION CENTER-P3
Test Date: 08/23/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 160-49-W-L5/835-UNV
Description: SHAPER 160 SERIES 49" FABRIQUE ROUND CYLINDER WALL SCONCE LUMINAIRE.
Light Source: 26 CKTS 3500K LEDS
12453372
Ballast/Driver: (1) PHILIPS ELECTRONIC DRIVER
LEDINTA2000C24DOM

Summary

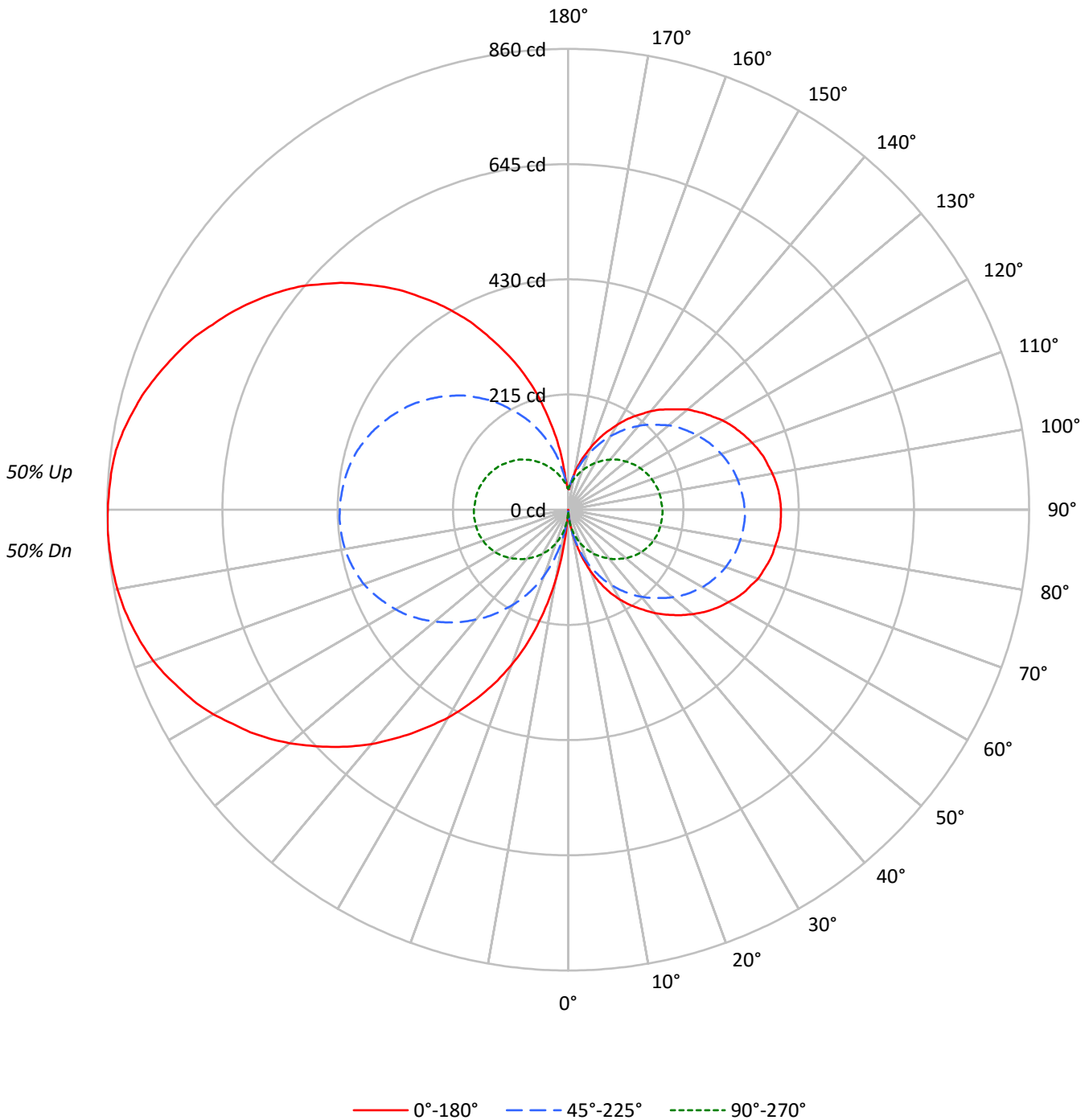
Lumens per Lamp: N/A
Luminaire Lumens: 3797.1 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 14.79 / 9.55 / 10.93
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 0.33' x H: 4.08')
CIE Type: General Diffuse

Input Watts (W): 41.9
Input Voltage (V): 120.0
Input Current (Ain): 0.350
Voltage Rise (V): NR
Power Factor: 0.9986
Total Harmonic Distortion (THDi): 6.6.92
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	60	57	52	49	46	41	38	36	30
2	82	71	63	56	74	65	58	51	53	48	42	43	38	34	33	29	26	21
3	73	61	51	44	66	55	47	40	45	39	33	36	31	26	27	23	20	15
4	66	53	43	35	60	48	39	32	39	32	27	31	25	21	23	19	16	12
5	60	46	36	29	54	42	33	27	34	27	22	27	21	17	20	16	13	9
6	55	41	31	24	50	37	29	22	30	23	18	24	18	14	18	14	10	7
7	50	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	10	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	12	20	14	10	16	11	8	12	8	6	3

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	145	145	145
5°	235	507	657
10°	654	804	2039
15°	937	968	2623
20°	1152	1069	2899
25°	1274	1123	3026
30°	1344	1171	3104
35°	1377	1196	3149
40°	1413	1226	3201
45°	1437	1250	3236
50°	1464	1280	3275
55°	1489	1300	3306
60°	1504	1319	3331
65°	1526	1330	3345
70°	1541	1342	3367
75°	1546	1357	3373
80°	1552	1366	3380
85°	1565	1377	3385



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.6	0.1
10°-20°	25.8	0.7
20°-30°	73.1	1.9
30°-40°	136.8	3.6
40°-50°	210.6	5.5
50°-60°	285.8	7.5
60°-70°	351.8	9.3
70°-80°	398.7	10.5
80°-90°	421.1	11.1
90°-100°	418.1	11.0
100°-110°	390.8	10.3
110°-120°	342.2	9.0
120°-130°	278.9	7.3
130°-140°	208.1	5.5
140°-150°	138.1	3.6
150°-160°	77.1	2.0
160°-170°	31.7	0.8
170°-180°	5.8	0.2
0°-30°	101.6	2.7
0°-40°	238.3	6.3
0°-60°	734.7	19.3
0°-90°	1906.2	50.2
90°-120°	1151.2	30.3
90°-150°	1776.3	46.8
90°-180°	1891.0	49.8
0°-180°	3797.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3	3	3	3	3	
5°	10	14	16	15	28	2
15°	80	75	51	89	224	24
25°	160	135	81	169	380	75
35°	223	188	107	237	510	141
45°	278	233	130	297	626	216
55°	326	273	150	350	724	292
65°	363	302	164	390	796	360
75°	386	321	173	416	842	408
85°	397	329	176	426	859	323
90°	397	329	176	426	859	217
95°	394	326	174	423	855	320
105°	378	314	170	410	823	399
115°	350	292	161	383	767	347
125°	312	262	148	347	692	280
135°	265	224	132	301	599	206
145°	212	182	112	248	486	134
155°	154	134	89	188	360	72
165°	97	87	67	123	222	28
175°	47	49	48	53	61	5
180°	39	39	39	39	39	



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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°	0	2	5	8	9	8	7	5	3
5°	10	11	14	16	16	14	15	19	28
7.5°	25	26	27	27	25	25	28	47	82
10°	42	41	41	40	34	37	47	74	131
12.5°	61	59	58	53	43	48	68	99	179
15°	80	79	75	66	51	60	89	127	224
17.5°	101	99	91	77	59	72	110	153	269
20°	122	119	106	89	67	82	131	180	307
22.5°	141	137	121	100	74	93	151	205	345
25°	160	154	135	111	81	103	169	227	380
27.5°	178	170	150	122	88	113	187	252	414
30°	194	186	163	132	95	123	204	278	448
32.5°	209	200	176	141	101	131	220	303	478
35°	223	214	188	151	107	140	237	331	510
37.5°	237	228	201	161	113	149	253	356	540
40°	252	241	212	170	119	157	267	383	571
42.5°	265	254	223	178	125	165	283	409	599
45°	278	267	233	187	130	172	297	432	626
47.5°	291	279	244	195	135	180	311	459	652
50°	303	290	254	202	141	186	325	480	678
52.5°	315	301	264	210	145	193	338	504	702
55°	326	312	273	217	150	199	350	525	724
57.5°	336	321	281	223	154	204	362	544	743
60°	345	331	289	229	158	210	372	564	764
62.5°	355	339	296	234	161	214	381	583	782
65°	363	347	302	239	164	218	390	598	796
67.5°	369	353	308	244	167	223	398	612	811
70°	377	360	313	248	169	226	406	624	824
72.5°	381	364	317	251	171	228	411	633	834
75°	386	369	321	254	173	231	416	643	842
77.5°	390	372	324	256	174	233	420	649	849
80°	392	374	326	257	175	233	423	654	854
82.5°	395	377	328	258	175	234	425	659	857
85°	397	379	329	259	176	234	426	660	859
87.5°	397	379	330	260	176	235	427	661	860
90°	397	379	329	260	176	235	426	661	859
92.5°	396	378	328	259	175	234	425	659	857
95°	394	375	326	257	174	233	423	655	855
97.5°	391	372	324	256	174	232	421	651	851
100°	387	369	321	254	173	231	418	645	843
102.5°	382	365	318	251	172	229	414	638	833
105°	378	360	314	249	170	227	410	630	823
107.5°	372	355	309	245	168	224	404	621	810
110°	365	349	304	241	166	222	398	609	796



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	358	342	298	237	164	218	391	598	782
115°	350	335	292	232	161	214	383	585	767
117.5°	342	326	285	227	158	210	375	570	748
120°	333	318	278	222	155	206	366	556	731
122.5°	322	308	270	216	152	201	357	540	712
125°	312	298	262	210	148	196	347	523	692
127.5°	301	288	254	204	144	191	336	506	671
130°	291	278	245	197	140	186	325	486	649
132.5°	277	266	234	190	136	180	313	468	623
135°	265	254	224	183	132	174	301	447	599
137.5°	253	243	215	175	127	167	289	427	571
140°	240	230	204	167	122	161	275	405	544
142.5°	225	217	193	159	117	154	261	382	517
145°	212	204	182	151	112	147	248	361	486
147.5°	198	191	170	142	106	139	233	338	457
150°	183	177	159	133	101	131	217	315	426
152.5°	168	163	147	123	95	123	203	294	395
155°	154	149	134	114	89	115	188	274	360
157.5°	139	134	122	105	84	107	172	253	326
160°	124	121	111	96	78	99	156	230	294
162.5°	109	107	99	87	73	91	139	207	259
165°	97	94	87	79	67	82	123	181	222
167.5°	83	81	77	72	62	74	106	153	181
170°	70	69	67	63	57	66	87	123	144
172.5°	58	59	58	57	52	57	69	89	105
175°	47	49	49	49	48	49	53	57	61
177.5°	38	39	41	43	43	42	42	42	41
180°	39	39	39	39	39	39	39	39	39

(END OF REPORT)