

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: P34057

Luminaire Tested: **140-36-P1S-L9/835**

Test Date: 04/27/15

Test Information

Test Method: LM-79-08
Report Number: P34057
Test Lab: INNOVATION CENTER-P2
Test Date: 04/27/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 140-36-P15-L9/835
Description: SHAPER 140 FABRIQUE FURL PENDANT LUMINAIRE WITH SHANTUNG WHITE SHADE. THDi: 10.3%, PF:.99323; PREBURN: 12 HR, TOTAL OP TIME: 13 HR, STAB: 30 MIN
Light Source: (66) 3500K EATON LEDS
12451476, 12441843
Ballast/Driver: (1) HATCH ELECTRONIC DRIVER (1) ROAL ELECTRONIC DRIVER
LC60-2400Z-UNV-F, RSLD035-07

Summary

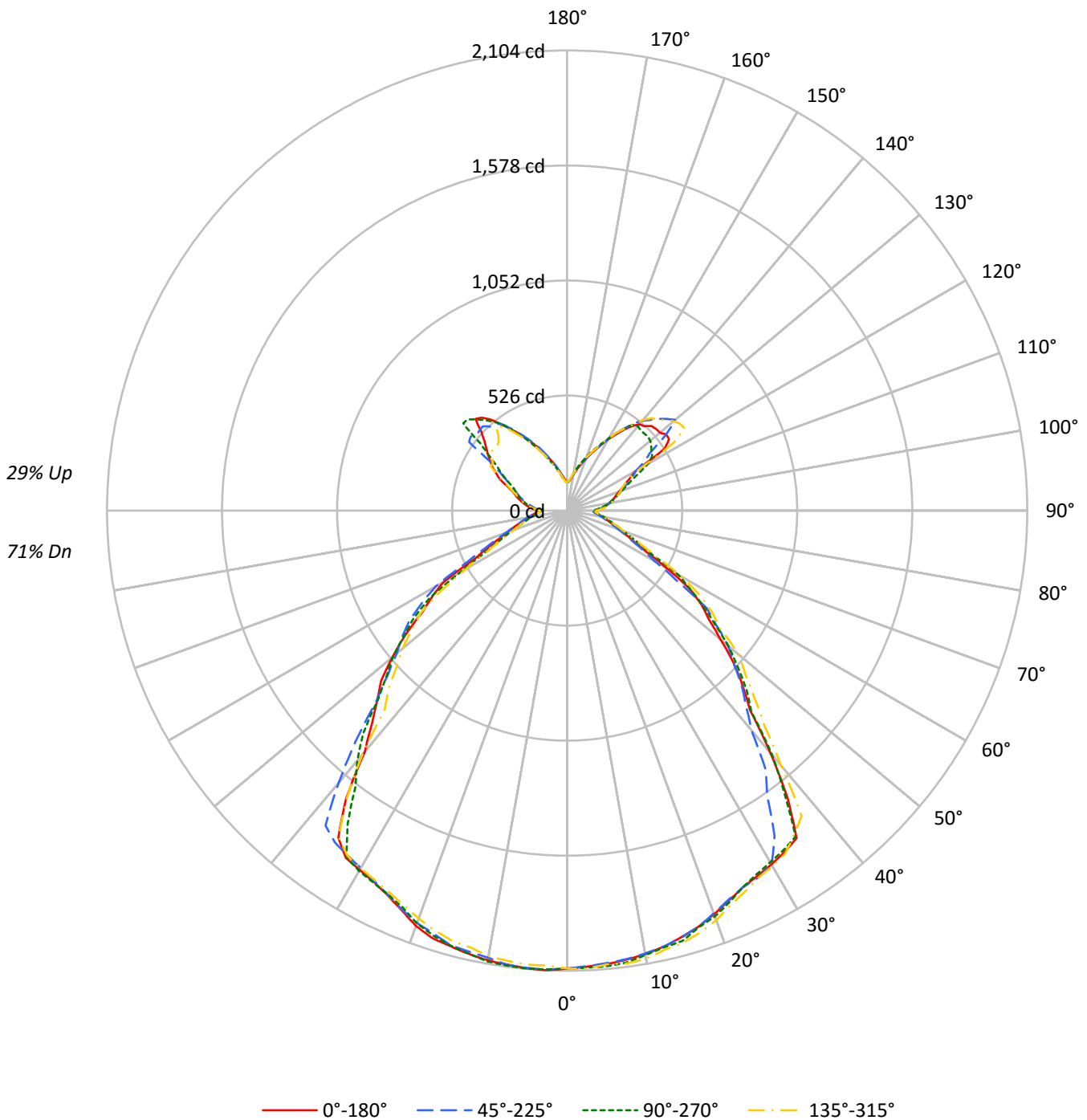
Lumens per Lamp: N/A
Luminaire Lumens: 7238.1 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 1.35 / 1.34 / 1.29
Luminous Opening: Vertical Cylinder (Dia: 3' x H: 1.33')
CIE Type: Semi-Direct

Input Watts (W): 78.7
Input Voltage (V): 120.0
Input Current (Ain): 0.663
Voltage Rise (V): NR
Power Factor: 0.9932
Total Harmonic Distortion (THDi): 10.3
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: HR
Ambient Temperature (°C): 24.9
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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	71
1	103	98	95	91	97	93	90	87	84	81	79	75	73	71	67	66	64	60
2	94	87	81	75	89	82	77	72	74	70	66	67	64	61	60	57	55	52
3	86	77	70	64	82	73	67	61	66	61	57	60	56	52	54	51	48	45
4	79	69	61	55	75	65	58	53	59	54	49	54	49	45	48	45	42	39
5	73	62	53	47	69	59	51	46	53	47	43	49	44	40	44	40	37	34
6	68	56	47	42	64	53	46	40	48	42	38	44	39	35	40	36	33	30
7	63	50	42	37	59	48	41	36	44	38	33	40	35	31	37	32	29	27
8	58	46	38	33	55	44	37	32	40	34	30	37	32	28	34	30	26	24
9	55	42	35	29	52	40	33	29	37	31	27	34	29	25	31	27	24	22
10	51	39	31	27	48	37	30	26	34	29	24	32	27	23	29	25	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	3189	3189	3189	3189
5°	3032	3046	3060	3062
10°	2895	2901	2936	2943
15°	2764	2789	2823	2819
20°	2639	2654	2716	2698
25°	2527	2526	2580	2575
30°	2476	2461	2514	2522
35°	2435	2423	2429	2329
40°	1948	1965	1941	2011
45°	1562	1595	1689	1682
50°	1295	1360	1476	1470
55°	1100	1111	1182	1255
60°	804	901	1001	871
65°	552	601	648	589
70°	444	478	511	464
75°	380	403	427	388
80°	340	358	379	338
85°	316	328	346	309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.1	2.8
10°-20°	576.4	8.0
20°-30°	890.2	12.3
30°-40°	1087.4	15.0
40°-50°	921.0	12.7
50°-60°	710.6	9.8
60°-70°	384.3	5.3
70°-80°	226.1	3.1
80°-90°	153.9	2.1
90°-100°	177.2	2.4
100°-110°	240.6	3.3
110°-120°	307.2	4.2
120°-130°	435.1	6.0
130°-140°	419.3	5.8
140°-150°	286.4	4.0
150°-160°	147.5	2.0
160°-170°	61.4	0.8
170°-180°	14.5	0.2
0°-30°	1665.7	23.0
0°-40°	2753.1	38.0
0°-60°	4384.6	60.6
0°-90°	5148.9	71.1
90°-120°	725.0	10.0
90°-150°	1865.8	25.8
90°-180°	2089.0	28.9
0°-180°	7238.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2094	2094	2094	2094	2094	
5°	2082	2091	2101	2102	2082	198
15°	2019	2037	2062	2059	2019	570
25°	1901	1900	1941	1937	1901	882
35°	1829	1820	1824	1749	1829	1093
45°	1136	1160	1228	1223	1136	883
55°	749	757	805	855	749	658
65°	339	369	398	362	339	353
75°	201	213	226	205	201	215
85°	135	140	148	132	135	116
90°	127	119	129	125	127	72
95°	164	158	173	160	164	140
105°	223	228	236	223	223	236
115°	296	324	339	287	296	297
125°	569	471	441	433	569	476
135°	546	498	593	589	546	418
145°	450	459	457	457	450	283
155°	307	317	320	308	307	145
165°	207	215	218	207	207	60
175°	140	142	146	138	140	14
180°	130	130	130	130	130	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2094	2094	2094	2094	2094	2094	2094	2094	2094	2094	2094
2.5°	2087	2092	2085	2090	2092	2093	2096	2097	2104	2105	2100
5°	2082	2085	2077	2096	2091	2091	2083	2091	2101	2103	2099
7.5°	2071	2077	2069	2089	2084	2085	2089	2084	2094	2098	2095
10°	2059	2066	2056	2066	2063	2080	2080	2074	2088	2092	2076
12.5°	2042	2049	2041	2049	2046	2066	2057	2058	2076	2082	2066
15°	2019	2027	2021	2038	2037	2043	2046	2042	2062	2067	2057
17.5°	1995	2000	1995	2003	1998	2015	2022	2017	2050	2043	2028
20°	1964	1967	1960	1972	1975	1982	1993	1989	2021	2014	2007
22.5°	1930	1925	1926	1940	1938	1947	1952	1958	1977	1979	1974
25°	1901	1904	1900	1908	1900	1909	1923	1920	1941	1942	1938
27.5°	1883	1879	1892	1885	1875	1877	1893	1900	1914	1912	1910
30°	1868	1868	1869	1876	1857	1856	1877	1884	1897	1889	1887
32.5°	1850	1790	1765	1851	1841	1839	1858	1857	1883	1877	1869
35°	1829	1721	1595	1686	1820	1821	1808	1698	1824	1862	1852
37.5°	1654	1534	1488	1552	1633	1793	1761	1578	1660	1745	1815
40°	1445	1359	1310	1330	1458	1571	1522	1385	1440	1597	1625
42.5°	1237	1159	1210	1249	1246	1371	1337	1319	1320	1422	1431
45°	1136	1019	1128	1147	1160	1220	1210	1252	1228	1258	1233
47.5°	1033	978	1030	1039	1058	1048	1103	1147	1154	1116	1113
50°	915	933	961	939	961	953	1027	1049	1043	1016	1017
52.5°	816	860	858	840	848	912	878	954	931	974	951
55°	749	739	779	745	757	850	808	855	805	908	882
57.5°	662	577	590	660	665	740	715	713	731	837	787
60°	523	474	460	500	586	607	603	627	651	686	694
62.5°	409	381	388	408	442	474	467	461	472	519	525
65°	339	321	329	346	369	390	380	384	398	415	424
67.5°	292	274	284	298	315	330	321	326	338	350	353
70°	255	239	248	261	274	285	276	282	293	301	299
72.5°	225	211	219	231	243	249	242	247	257	263	261
75°	201	187	195	205	213	220	213	217	226	231	229
77.5°	180	167	174	184	190	197	190	194	203	207	204
80°	163	151	157	166	172	176	170	173	182	185	183
82.5°	148	137	142	150	154	159	154	155	163	167	164
85°	135	125	129	137	140	145	140	141	148	151	149
87.5°	124	115	118	123	127	132	129	128	135	138	136
90°	127	123	125	124	119	127	133	130	129	123	119
92.5°	144	142	142	142	137	146	154	152	151	141	136
95°	164	162	164	163	158	167	176	177	173	160	152
97.5°	181	179	181	179	176	183	191	192	189	177	167
100°	195	195	198	197	193	198	205	208	204	194	185
102.5°	209	210	215	214	211	213	219	223	221	211	201
105°	223	226	230	230	228	228	233	238	236	228	218
107.5°	236	240	247	245	245	241	246	252	251	243	233
110°	253	253	263	264	266	257	259	267	270	261	249



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	273	266	285	295	292	278	271	284	300	288	267
115°	296	283	308	331	324	308	292	312	339	324	291
117.5°	325	332	336	358	366	346	317	351	365	363	321
120°	360	385	363	381	427	405	384	384	392	408	360
122.5°	529	494	419	407	461	545	577	451	416	459	414
125°	569	670	465	436	471	570	656	502	441	476	547
127.5°	571	667	569	464	484	562	651	670	465	490	556
130°	554	645	645	499	496	565	635	647	493	495	539
132.5°	552	620	620	519	501	547	613	622	532	493	543
135°	546	595	593	552	498	546	587	596	593	501	545
137.5°	523	567	562	545	498	540	573	568	576	515	521
140°	515	535	536	515	503	511	541	535	543	520	513
142.5°	486	497	502	483	495	479	495	502	496	489	502
145°	450	454	458	447	459	448	458	466	457	450	463
147.5°	411	424	422	408	420	410	422	432	421	415	427
150°	376	384	381	371	382	373	382	388	384	380	390
152.5°	340	350	340	337	347	339	347	347	351	347	358
155°	307	317	308	305	317	308	314	316	320	318	328
157.5°	280	285	279	278	290	281	285	286	289	291	298
160°	252	256	252	251	263	255	260	260	261	263	267
162.5°	228	233	231	229	239	233	237	237	239	240	243
165°	207	211	210	208	215	212	215	216	218	219	219
167.5°	187	190	190	190	194	191	194	196	196	199	196
170°	169	170	170	170	173	173	174	176	177	178	176
172.5°	152	154	154	153	156	156	157	159	160	160	157
175°	140	140	140	140	142	143	143	145	146	146	143
177.5°	132	132	132	132	132	133	134	135	136	135	133
180°	130	130	130	130	130	130	130	130	130	130	130



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2094	2094	2094	2094	2094	2094
2.5°	2105	2100	2091	2082	2091	2087
5°	2105	2102	2092	2084	2087	2082
7.5°	2096	2099	2086	2077	2077	2071
10°	2087	2093	2079	2068	2069	2059
12.5°	2082	2076	2066	2045	2050	2042
15°	2060	2059	2045	2036	2028	2019
17.5°	2027	2037	2023	2013	2004	1995
20°	2008	2008	1993	1984	1975	1964
22.5°	1972	1964	1962	1953	1943	1930
25°	1940	1937	1929	1926	1917	1901
27.5°	1913	1918	1911	1905	1897	1883
30°	1896	1903	1897	1887	1877	1868
32.5°	1881	1877	1882	1871	1860	1850
35°	1829	1749	1762	1822	1802	1829
37.5°	1770	1589	1607	1652	1615	1654
40°	1591	1492	1446	1456	1316	1445
42.5°	1337	1380	1254	1235	1249	1237
45°	1251	1223	1145	1155	1169	1136
47.5°	1134	1119	1047	1057	1065	1033
50°	1026	1039	1008	984	944	915
52.5°	925	938	934	893	835	816
55°	804	855	824	816	721	749
57.5°	707	746	670	686	672	662
60°	648	566	515	537	575	523
62.5°	555	436	418	420	416	409
65°	395	362	353	350	344	339
67.5°	328	308	302	299	294	292
70°	281	266	262	260	256	255
72.5°	247	232	231	230	224	225
75°	217	205	204	204	198	201
77.5°	194	182	182	183	177	180
80°	174	162	164	164	159	163
82.5°	158	147	149	149	144	148
85°	145	132	135	136	131	135
87.5°	133	121	121	123	119	124
90°	128	125	129	125	117	127
92.5°	146	143	148	144	135	144
95°	159	160	170	164	155	164
97.5°	176	178	188	183	174	181
100°	191	194	203	200	191	195
102.5°	206	208	217	216	208	209
105°	220	223	230	231	224	223
107.5°	234	237	245	245	239	236
110°	246	251	257	266	256	253



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	259	262	271	292	277	273
115°	273	287	292	323	305	296
117.5°	293	318	316	362	340	325
120°	321	352	337	403	394	360
122.5°	370	382	361	403	469	529
125°	487	433	390	420	473	569
127.5°	601	493	414	435	467	571
130°	600	621	434	442	471	554
132.5°	580	616	465	436	459	552
135°	575	589	577	443	456	546
137.5°	547	561	561	465	455	523
140°	518	531	528	504	453	515
142.5°	486	501	500	482	468	486
145°	447	457	462	445	459	450
147.5°	408	412	413	407	421	411
150°	372	378	377	372	386	376
152.5°	339	341	342	338	353	340
155°	306	308	312	308	323	307
157.5°	278	278	280	278	291	280
160°	251	250	250	251	261	252
162.5°	228	228	228	227	230	228
165°	207	207	206	205	205	207
167.5°	186	185	185	185	184	187
170°	168	166	166	168	166	169
172.5°	152	150	150	151	151	152
175°	139	138	138	139	139	140
177.5°	132	132	132	132	132	132
180°	130	130	130	130	130	130

(END OF REPORT)