

Scaled data based on original data using
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact
Fluorescent Lamps

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: SHAPER

Report Number: 253259

Luminaire Tested: **1215-XX-44-CFL/8/55-T5C/1/40**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 253259
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1215-XX-44-CFL/8/55-T5C/1/40
Description: SHAPER 44 INCH 1215 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
WITH SHALLOW BOWL
Light Source: EIGHT 55 WATT BIAx COMPACT FLUORESCENT LAMPS AND ONE 40 WATT T5 CIRCLINE
(8)F55BX/SPX31 - 4800 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS
Ballast/Driver: -

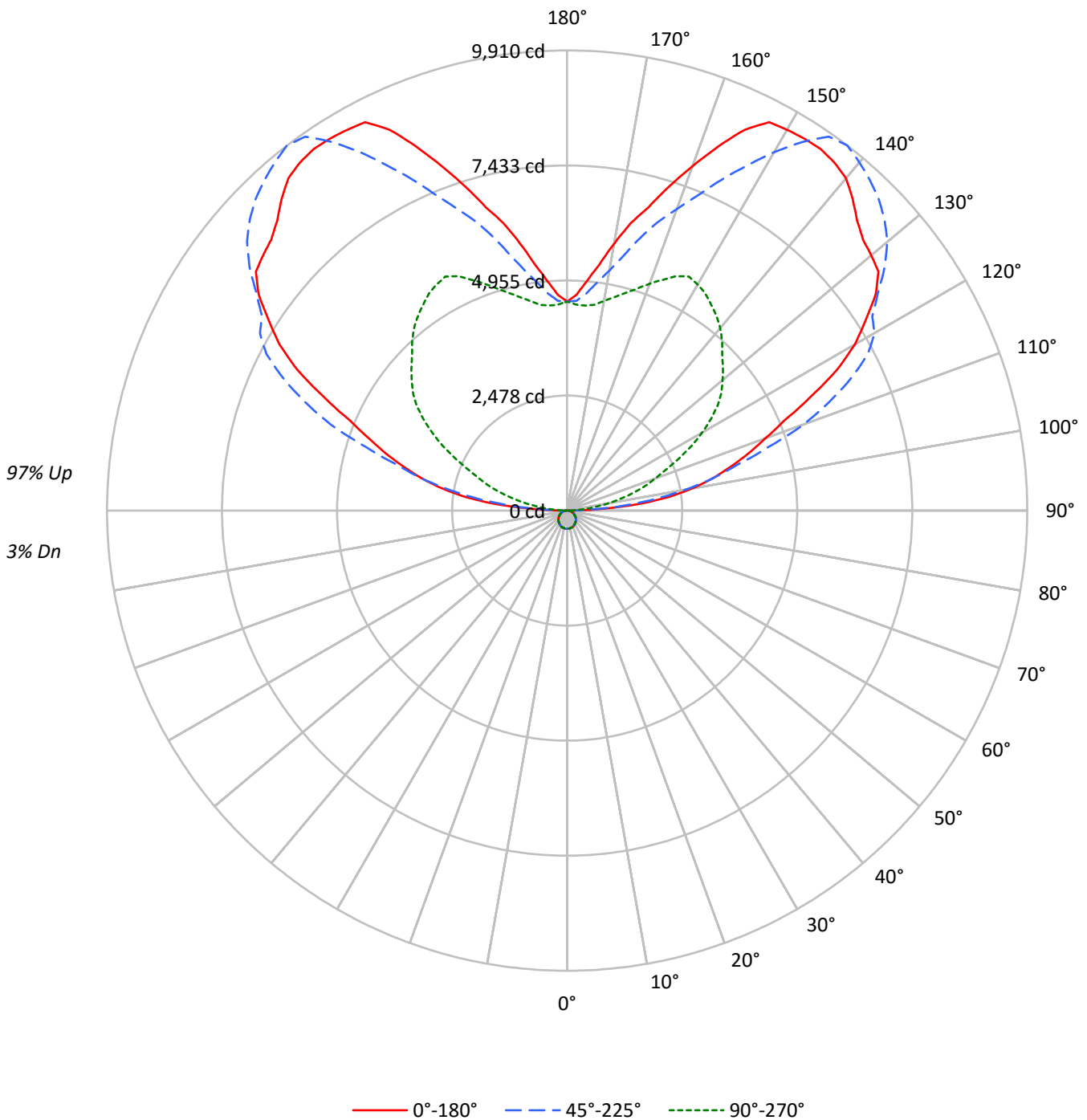
Summary

Lumens per Lamp: 41700 (1 lamp)
Luminaire Lumens: 35827.8 lumens
Efficiency: 85.9%
Efficacy: 833.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.4
Luminous Opening: Vertical Cylinder (Dia: 3.67' x H: 0.69')
CIE Type: Indirect

Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
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	83	83	83	83	71	71	71	71	49	49	49		30	30	30		11	11	11	3
1	75	72	68	66	64	62	59	57	43	41	40		26	25	24		10	10	9	2
2	68	62	57	53	58	54	50	46	37	35	33		23	21	20		9	8	8	2
3	62	55	49	44	53	47	42	39	33	30	28		20	18	17		8	7	7	2
4	57	48	42	37	48	42	36	32	29	26	23		18	16	14		7	6	6	1
5	52	43	36	31	44	37	31	28	26	22	20		16	14	12		6	5	5	1
6	47	38	32	27	41	33	27	24	23	20	17		14	12	11		5	5	4	1
7	44	34	28	23	37	29	24	20	21	17	15		13	11	9		5	4	4	1
8	40	31	24	20	35	26	21	18	19	15	13		11	9	8		4	4	3	1
9	37	28	22	18	32	24	19	16	17	14	11		10	8	7		4	3	3	1
10	35	25	19	16	30	22	17	14	15	12	10		9	8	6		4	3	3	1

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	398	398	398
5°	391	391	391
10°	377	377	377
15°	377	377	377
20°	369	369	369
25°	354	354	354
30°	341	341	341
35°	331	331	331
40°	322	322	322
45°	314	314	314
50°	296	296	296
55°	278	278	278
60°	260	260	260
65°	255	255	255
70°	234	234	234
75°	208	208	208
80°	200	200	200
85°	188	188	188



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	37.0	0.1	0.1
10°-20°	106.5	0.3	0.3
20°-30°	161.5	0.5	0.4
30°-40°	194.3	0.5	0.5
40°-50°	205.6	0.6	0.5
50°-60°	190.1	0.5	0.5
60°-70°	154.8	0.4	0.4
70°-80°	109.5	0.3	0.3
80°-90°	62.7	0.2	0.2
90°-100°	1239.2	3.5	3.0
100°-110°	3654.1	10.2	8.8
110°-120°	5634.2	15.7	13.5
120°-130°	6668.6	18.6	16.0
130°-140°	6378.8	17.8	15.3
140°-150°	5331.4	14.9	12.8
150°-160°	3527.4	9.8	8.5
160°-170°	1707.7	4.8	4.1
170°-180°	464.4	1.3	1.1
0°-30°	304.9	0.9	0.7
0°-40°	499.2	1.4	1.2
0°-60°	894.9	2.5	2.1
0°-90°	1221.9	3.4	2.9
90°-120°	10527.4	29.4	25.2
90°-150°	28906.3	80.7	69.3
90°-180°	34606.0	96.6	83.0
0°-180°	35827.8	100.0	85.9

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	390	390	390	390	390	37
15°	380	380	380	380	380	106
25°	350	350	350	350	350	161
35°	310	310	310	310	310	194
45°	270	270	270	270	270	206
55°	210	210	210	210	210	190
65°	160	160	160	160	160	155
75°	100	100	100	100	100	110
85°	60	60	60	60	60	53
90°	10	28	20	20	10	99
95°	1490	1316	1240	997	390	1455
105°	3640	3914	3780	3465	1470	3848
115°	5780	6492	6750	5349	2650	5746
125°	8110	8700	8170	6967	3960	7171
135°	8830	9231	9490	7474	4720	6867
145°	9510	9519	9830	7388	5410	5945
155°	9050	8610	7860	6657	5570	4147
165°	6760	6491	6080	5372	4850	1963
175°	4970	4830	4690	4524	4430	501
180°	4500	4500	4500	4500	4500	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	390	390	390	390	390	390	390	390	390	390	390
2.5°	390	390	390	390	390	390	390	390	390	390	390
5°	390	390	390	390	390	390	390	390	390	390	390
7.5°	390	390	390	390	390	390	390	390	390	390	390
10°	380	380	380	380	380	380	380	380	380	380	380
12.5°	380	380	380	380	380	380	380	380	380	380	380
15°	380	380	380	380	380	380	380	380	380	380	380
17.5°	370	370	370	370	370	370	370	370	370	370	370
20°	370	370	370	370	370	370	370	370	370	370	370
22.5°	360	360	360	360	360	360	360	360	360	360	360
25°	350	350	350	350	350	350	350	350	350	350	350
27.5°	340	340	340	340	340	340	340	340	340	340	340
30°	330	330	330	330	330	330	330	330	330	330	330
32.5°	320	320	320	320	320	320	320	320	320	320	320
35°	310	310	310	310	310	310	310	310	310	310	310
37.5°	300	300	300	300	300	300	300	300	300	300	300
40°	290	290	290	290	290	290	290	290	290	290	290
42.5°	280	280	280	280	280	280	280	280	280	280	280
45°	270	270	270	270	270	270	270	270	270	270	270
47.5°	250	250	250	250	250	250	250	250	250	250	250
50°	240	240	240	240	240	240	240	240	240	240	240
52.5°	230	230	230	230	230	230	230	230	230	230	230
55°	210	210	210	210	210	210	210	210	210	210	210
57.5°	200	200	200	200	200	200	200	200	200	200	200
60°	180	180	180	180	180	180	180	180	180	180	180
62.5°	170	170	170	170	170	170	170	170	170	170	170
65°	160	160	160	160	160	160	160	160	160	160	160
67.5°	140	140	140	140	140	140	140	140	140	140	140
70°	130	130	130	130	130	130	130	130	130	130	130
72.5°	120	120	120	120	120	120	120	120	120	120	120
75°	100	100	100	100	100	100	100	100	100	100	100
77.5°	90	90	90	90	90	90	90	90	90	90	90
80°	80	80	80	80	80	80	80	80	80	80	80
82.5°	70	70	70	70	70	70	70	70	70	70	70
85°	60	60	60	60	60	60	60	60	60	60	60
87.5°	50	50	50	50	50	50	50	50	50	50	50
90°	10	14	19	23	28	29	27	24	22	20	20
92.5°	650	623	597	570	543	526	517	508	499	490	477
95°	1490	1450	1410	1370	1330	1302	1287	1271	1256	1240	1191
97.5°	2170	2157	2143	2130	2117	2089	2047	2004	1962	1920	1860
100°	2730	2754	2779	2803	2828	2811	2753	2696	2638	2580	2516
102.5°	3210	3254	3299	3343	3388	3389	3347	3304	3262	3220	3173
105°	3640	3707	3773	3840	3907	3922	3887	3851	3816	3780	3733
107.5°	4090	4179	4268	4357	4446	4496	4507	4518	4529	4540	4422
110°	4540	4644	4749	4853	4958	5056	5147	5238	5329	5420	5180



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	5060	5211	5362	5513	5664	5781	5863	5946	6028	6110	5832
115°	5780	5944	6109	6273	6438	6546	6597	6648	6699	6750	6457
117.5°	6540	6698	6856	7013	7171	7256	7267	7278	7289	7300	6993
120°	7150	7297	7443	7590	7737	7791	7753	7716	7678	7640	7351
122.5°	7620	7784	7949	8113	8278	8297	8170	8043	7917	7790	7561
125°	8110	8257	8403	8550	8697	8703	8570	8437	8303	8170	7928
127.5°	8450	8541	8632	8723	8814	8833	8780	8727	8673	8620	8340
130°	8550	8626	8701	8777	8852	8902	8927	8951	8976	9000	8653
132.5°	8640	8727	8813	8900	8987	9057	9110	9163	9217	9270	8874
135°	8830	8921	9012	9103	9194	9268	9323	9379	9434	9490	9052
137.5°	9100	9176	9251	9327	9402	9463	9510	9557	9603	9650	9174
140°	9340	9380	9420	9460	9500	9550	9610	9670	9730	9790	9277
142.5°	9450	9472	9494	9517	9539	9590	9670	9750	9830	9910	9357
145°	9510	9508	9506	9503	9501	9537	9610	9683	9757	9830	9281
147.5°	9500	9496	9491	9487	9482	9472	9457	9441	9426	9410	8946
150°	9470	9463	9457	9450	9443	9381	9263	9146	9028	8910	8539
152.5°	9430	9374	9319	9263	9208	9090	8910	8730	8550	8370	8066
155°	9050	8957	8863	8770	8677	8544	8373	8202	8031	7860	7591
157.5°	8480	8384	8289	8193	8098	7971	7813	7656	7498	7340	7107
160°	7890	7799	7708	7617	7526	7417	7290	7163	7037	6910	6697
162.5°	7320	7236	7151	7067	6982	6893	6800	6707	6613	6520	6322
165°	6760	6702	6644	6587	6529	6453	6360	6267	6173	6080	5920
167.5°	6340	6276	6211	6147	6082	6002	5907	5811	5716	5620	5502
170°	5840	5784	5729	5673	5618	5552	5477	5401	5326	5250	5159
172.5°	5350	5310	5270	5230	5190	5146	5097	5048	4999	4950	4883
175°	4970	4939	4908	4877	4846	4814	4783	4752	4721	4690	4652
177.5°	4650	4632	4614	4597	4579	4564	4553	4542	4531	4520	4507
180°	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	390	390	390	390	390	390	390	390
2.5°	390	390	390	390	390	390	390	390
5°	390	390	390	390	390	390	390	390
7.5°	390	390	390	390	390	390	390	390
10°	380	380	380	380	380	380	380	380
12.5°	380	380	380	380	380	380	380	380
15°	380	380	380	380	380	380	380	380
17.5°	370	370	370	370	370	370	370	370
20°	370	370	370	370	370	370	370	370
22.5°	360	360	360	360	360	360	360	360
25°	350	350	350	350	350	350	350	350
27.5°	340	340	340	340	340	340	340	340
30°	330	330	330	330	330	330	330	330
32.5°	320	320	320	320	320	320	320	320
35°	310	310	310	310	310	310	310	310
37.5°	300	300	300	300	300	300	300	300
40°	290	290	290	290	290	290	290	290
42.5°	280	280	280	280	280	280	280	280
45°	270	270	270	270	270	270	270	270
47.5°	250	250	250	250	250	250	250	250
50°	240	240	240	240	240	240	240	240
52.5°	230	230	230	230	230	230	230	230
55°	210	210	210	210	210	210	210	210
57.5°	200	200	200	200	200	200	200	200
60°	180	180	180	180	180	180	180	180
62.5°	170	170	170	170	170	170	170	170
65°	160	160	160	160	160	160	160	160
67.5°	140	140	140	140	140	140	140	140
70°	130	130	130	130	130	130	130	130
72.5°	120	120	120	120	120	120	120	120
75°	100	100	100	100	100	100	100	100
77.5°	90	90	90	90	90	90	90	90
80°	80	80	80	80	80	80	80	80
82.5°	70	70	70	70	70	70	70	70
85°	60	60	60	60	60	60	60	60
87.5°	50	50	50	50	50	50	50	50
90°	20	20	20	19	17	14	12	10
92.5°	463	450	437	398	333	269	204	140
95°	1142	1093	1044	950	810	670	530	390
97.5°	1800	1740	1680	1536	1307	1078	849	620
100°	2451	2387	2322	2136	1827	1518	1209	900
102.5°	3127	3080	3033	2808	2403	1999	1594	1190
105°	3687	3640	3593	3337	2870	2403	1937	1470
107.5°	4304	4187	4069	3760	3260	2760	2260	1760
110°	4940	4700	4460	4081	3563	3046	2528	2010



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	5554	5277	4999	4576	4007	3438	2869	2300
115°	6163	5870	5577	5121	4503	3886	3268	2650
117.5°	6687	6380	6073	5598	4953	4309	3664	3020
120°	7062	6773	6484	6009	5347	4684	4022	3360
122.5°	7332	7103	6874	6417	5730	5043	4357	3670
125°	7686	7443	7201	6733	6040	5347	4653	3960
127.5°	8060	7780	7500	7008	6303	5599	4894	4190
130°	8307	7960	7613	7099	6417	5734	5052	4370
132.5°	8479	8083	7688	7163	6510	5857	5203	4550
135°	8614	8177	7739	7209	6587	5964	5342	4720
137.5°	8699	8223	7748	7224	6653	6082	5511	4940
140°	8763	8250	7737	7219	6697	6174	5652	5130
142.5°	8803	8250	7697	7182	6707	6231	5756	5280
145°	8732	8183	7634	7143	6710	6277	5843	5410
147.5°	8481	8017	7552	7122	6727	6331	5936	5540
150°	8168	7797	7426	7060	6700	6340	5980	5620
152.5°	7761	7457	7152	6853	6560	6267	5973	5680
155°	7322	7053	6784	6530	6290	6050	5810	5570
157.5°	6873	6640	6407	6189	5987	5784	5582	5380
160°	6483	6270	6057	5867	5700	5533	5367	5200
162.5°	6124	5927	5729	5561	5423	5286	5148	5010
165°	5760	5600	5440	5303	5190	5077	4963	4850
167.5°	5384	5267	5149	5048	4963	4879	4794	4710
170°	5068	4977	4886	4811	4753	4696	4638	4580
172.5°	4817	4750	4683	4630	4590	4550	4510	4470
175°	4614	4577	4539	4510	4490	4470	4450	4430
177.5°	4493	4480	4467	4458	4453	4449	4444	4440
180°	4500	4500	4500	4500	4500	4500	4500	4500

(END OF REPORT)