

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: 253P228

Luminaire Tested: **1215-XX-36-CFL/3/57-T5C/1/40**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 253P228
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1215-XX-36-CFL/3/57-T5C/1/40
Description: SHAPER 36 INCH 1215 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE
WITH SHALLOW BOWL
Light Source: THREE 57 WATT FLUORESCENT LAMPS AND ONE 40 WATTS
(3)PLT57/830 -4300 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS
Ballast/Driver: -

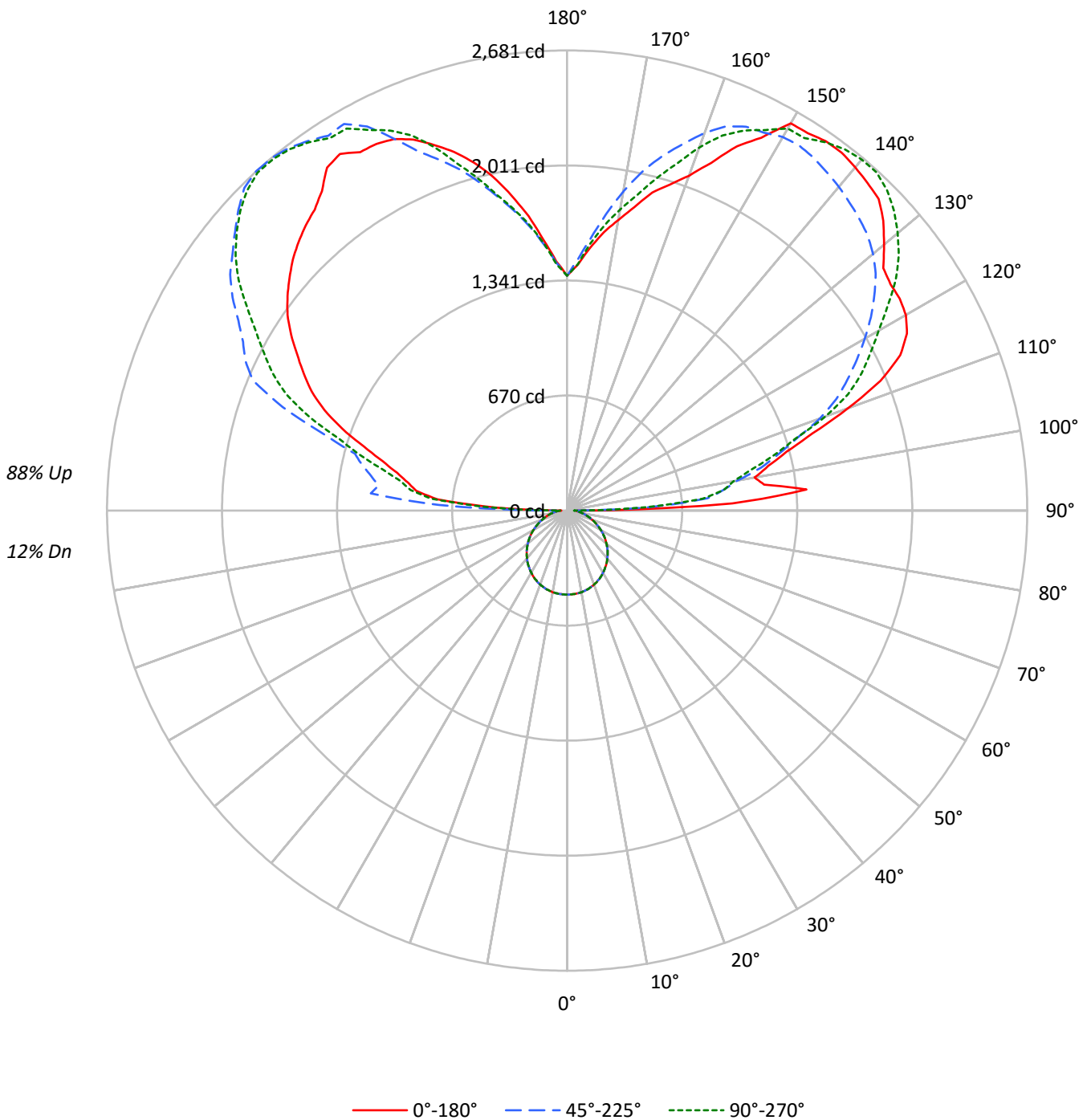
Summary

Lumens per Lamp: 16200 (1 lamp)
Luminaire Lumens: 13047.2 lumens
Efficiency: 80.5%
Efficacy: 303.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
Luminous Opening: Vertical Cylinder (Dia: 3' x H: 0.52')
CIE Type: Semi-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	79	79	79	79	69	69	69	69	50	50	50	33	33	33	17	17	17	9
1	72	68	65	63	62	60	57	55	43	42	40	28	27	27	15	14	14	8
2	65	59	55	51	57	52	48	45	38	35	33	25	23	22	13	12	11	6
3	59	52	47	42	51	46	41	37	33	30	28	22	20	19	11	10	10	5
4	54	46	40	35	47	40	35	31	29	26	23	19	17	16	10	9	8	4
5	49	41	35	30	43	36	31	27	26	23	20	17	15	13	9	8	7	4
6	45	36	30	26	39	32	27	23	23	20	17	15	13	12	8	7	6	3
7	42	33	27	22	36	29	23	20	21	17	15	14	12	10	7	6	5	3
8	39	29	23	19	34	26	21	17	19	16	13	13	10	9	7	6	5	3
9	36	27	21	17	31	23	19	15	17	14	12	11	9	8	6	5	4	2
10	33	24	19	15	29	21	17	13	16	12	10	11	8	7	6	5	4	2

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	745	745	745
5°	732	732	732
10°	719	719	719
15°	704	704	704
20°	688	688	688
25°	672	672	672
30°	652	652	652
35°	633	633	633
40°	610	610	610
45°	587	587	587
50°	561	561	561
55°	533	533	533
60°	500	500	500
65°	464	464	464
70°	427	427	427
75°	390	390	390
80°	354	354	354
85°	322	322	322



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	46.4	0.4	0.3
10°-20°	133.5	1.0	0.8
20°-30°	203.1	1.6	1.3
30°-40°	245.8	1.9	1.5
40°-50°	256.7	2.0	1.6
50°-60°	235.8	1.8	1.5
60°-70°	188.3	1.4	1.2
70°-80°	128.2	1.0	0.8
80°-90°	72.3	0.6	0.4
90°-100°	847.5	6.5	5.2
100°-110°	1368.5	10.5	8.4
110°-120°	1879.0	14.4	11.6
120°-130°	2028.5	15.5	12.5
130°-140°	1942.0	14.9	12.0
140°-150°	1611.7	12.4	9.9
150°-160°	1120.1	8.6	6.9
160°-170°	582.5	4.5	3.6
170°-180°	157.4	1.2	1.0
0°-30°	382.9	2.9	2.4
0°-40°	628.7	4.8	3.9
0°-60°	1121.2	8.6	6.9
0°-90°	1509.9	11.6	9.3
90°-120°	4095.0	31.4	25.3
90°-150°	9677.2	74.2	59.7
90°-180°	11537.0	88.4	71.2
0°-180°	13047.2	100.0	80.5

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	489	489	489	489	489	
5°	488	488	488	488	488	46
15°	473	473	473	473	473	133
25°	441	441	441	441	441	203
35°	393	393	393	393	393	246
45°	333	333	333	333	333	257
55°	264	264	264	264	264	236
65°	190	190	190	190	190	188
75°	121	121	121	121	121	128
85°	65	65	65	65	65	58
90°	58	37	39	64	33	155
95°	1400	821	791	1149	760	979
105°	1322	1275	1248	1279	1112	1438
115°	2142	1801	1894	2069	1643	2071
125°	2300	2185	2337	2397	1989	2077
135°	2567	2407	2637	2659	2213	1966
145°	2627	2507	2620	2629	2439	1645
155°	2342	2468	2443	2392	2388	1086
165°	1919	2137	2002	1981	2099	545
175°	1537	1594	1562	1556	1583	152
180°	1368	1368	1368	1368	1368	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	489	489	489	489	489	489	489	489	489
2.5°	489	489	489	489	489	489	489	489	489
5°	488	488	488	488	488	488	488	488	488
7.5°	486	486	486	486	486	486	486	486	486
10°	483	483	483	483	483	483	483	483	483
12.5°	478	478	478	478	478	478	478	478	478
15°	473	473	473	473	473	473	473	473	473
17.5°	466	466	466	466	466	466	466	466	466
20°	459	459	459	459	459	459	459	459	459
22.5°	450	450	450	450	450	450	450	450	450
25°	441	441	441	441	441	441	441	441	441
27.5°	430	430	430	430	430	430	430	430	430
30°	418	418	418	418	418	418	418	418	418
32.5°	406	406	406	406	406	406	406	406	406
35°	393	393	393	393	393	393	393	393	393
37.5°	379	379	379	379	379	379	379	379	379
40°	364	364	364	364	364	364	364	364	364
42.5°	349	349	349	349	349	349	349	349	349
45°	333	333	333	333	333	333	333	333	333
47.5°	316	316	316	316	316	316	316	316	316
50°	299	299	299	299	299	299	299	299	299
52.5°	282	282	282	282	282	282	282	282	282
55°	264	264	264	264	264	264	264	264	264
57.5°	245	245	245	245	245	245	245	245	245
60°	227	227	227	227	227	227	227	227	227
62.5°	208	208	208	208	208	208	208	208	208
65°	190	190	190	190	190	190	190	190	190
67.5°	172	172	172	172	172	172	172	172	172
70°	154	154	154	154	154	154	154	154	154
72.5°	137	137	137	137	137	137	137	137	137
75°	121	121	121	121	121	121	121	121	121
77.5°	105	105	105	105	105	105	105	105	105
80°	91	91	91	91	91	91	91	91	91
82.5°	77	77	77	77	77	77	77	77	77
85°	65	65	65	65	65	65	65	65	65
87.5°	54	54	54	54	54	54	54	54	54
90°	58	64	37	35	39	55	64	43	33
92.5°	964	645	493	428	459	808	748	526	421
95°	1400	1026	821	758	791	1216	1149	858	760
97.5°	1157	1066	917	885	920	1119	1109	941	887
100°	1109	1157	1007	944	984	1115	1159	1047	942
102.5°	1200	1231	1157	1022	1095	1203	1223	1211	1014
105°	1322	1277	1275	1133	1248	1334	1279	1326	1112
107.5°	1499	1494	1404	1272	1394	1485	1490	1472	1241
110°	1741	1760	1567	1425	1599	1714	1764	1649	1395



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	1976	1955	1697	1566	1772	1923	1981	1782	1530
115°	2142	2025	1801	1684	1894	2072	2069	1883	1643
117.5°	2232	2087	1902	1774	1992	2171	2129	1986	1730
120°	2279	2184	2002	1868	2096	2240	2211	2091	1816
122.5°	2297	2312	2098	1974	2212	2295	2312	2195	1907
125°	2300	2424	2185	2072	2337	2336	2397	2289	1989
127.5°	2321	2502	2266	2149	2435	2374	2457	2377	2054
130°	2410	2564	2327	2215	2514	2448	2526	2441	2111
132.5°	2499	2624	2374	2273	2584	2520	2597	2485	2167
135°	2567	2678	2407	2318	2637	2585	2659	2514	2213
137.5°	2590	2700	2435	2357	2670	2617	2681	2538	2254
140°	2611	2692	2463	2385	2670	2635	2680	2556	2289
142.5°	2628	2661	2485	2425	2654	2647	2663	2554	2346
145°	2627	2619	2507	2475	2620	2645	2629	2543	2439
147.5°	2608	2580	2520	2486	2573	2626	2590	2546	2464
150°	2605	2603	2513	2447	2570	2626	2601	2563	2412
152.5°	2448	2538	2482	2446	2500	2484	2523	2506	2408
155°	2342	2417	2468	2415	2443	2394	2392	2482	2388
157.5°	2192	2317	2423	2358	2366	2252	2263	2440	2340
160°	2076	2240	2341	2276	2251	2116	2175	2358	2267
162.5°	1992	2138	2238	2186	2117	2018	2084	2243	2191
165°	1919	2026	2137	2086	2002	1933	1981	2136	2099
167.5°	1811	1917	2023	1971	1883	1828	1873	2022	1992
170°	1719	1810	1889	1846	1782	1734	1773	1890	1863
172.5°	1635	1690	1742	1719	1678	1645	1669	1739	1731
175°	1537	1568	1594	1581	1562	1542	1556	1595	1583
177.5°	1434	1456	1467	1452	1437	1434	1446	1471	1453
180°	1368	1368	1368	1368	1368	1368	1368	1368	1368

(END OF REPORT)