

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: 253P231

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-66-11  
Report Number: 253P231  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 1215-XX-36-CFL/3/40-T5C/1/40  
Description: SHAPER 36 INCH 1215 SERIES DIRECT/INDIRECT INDOOR PENDANT FIXTURE  
WITH SHALLOW BOWL  
Light Source: THREE 40 WATT BIAx COMPACT FLUORESCENT AND ONE 40 WATT T5 CIRCLINE  
(3)F40BX - 3150 LUMENS AND (1)TL5C40W/830 - 3300 LUMENS  
Ballast/Driver: -

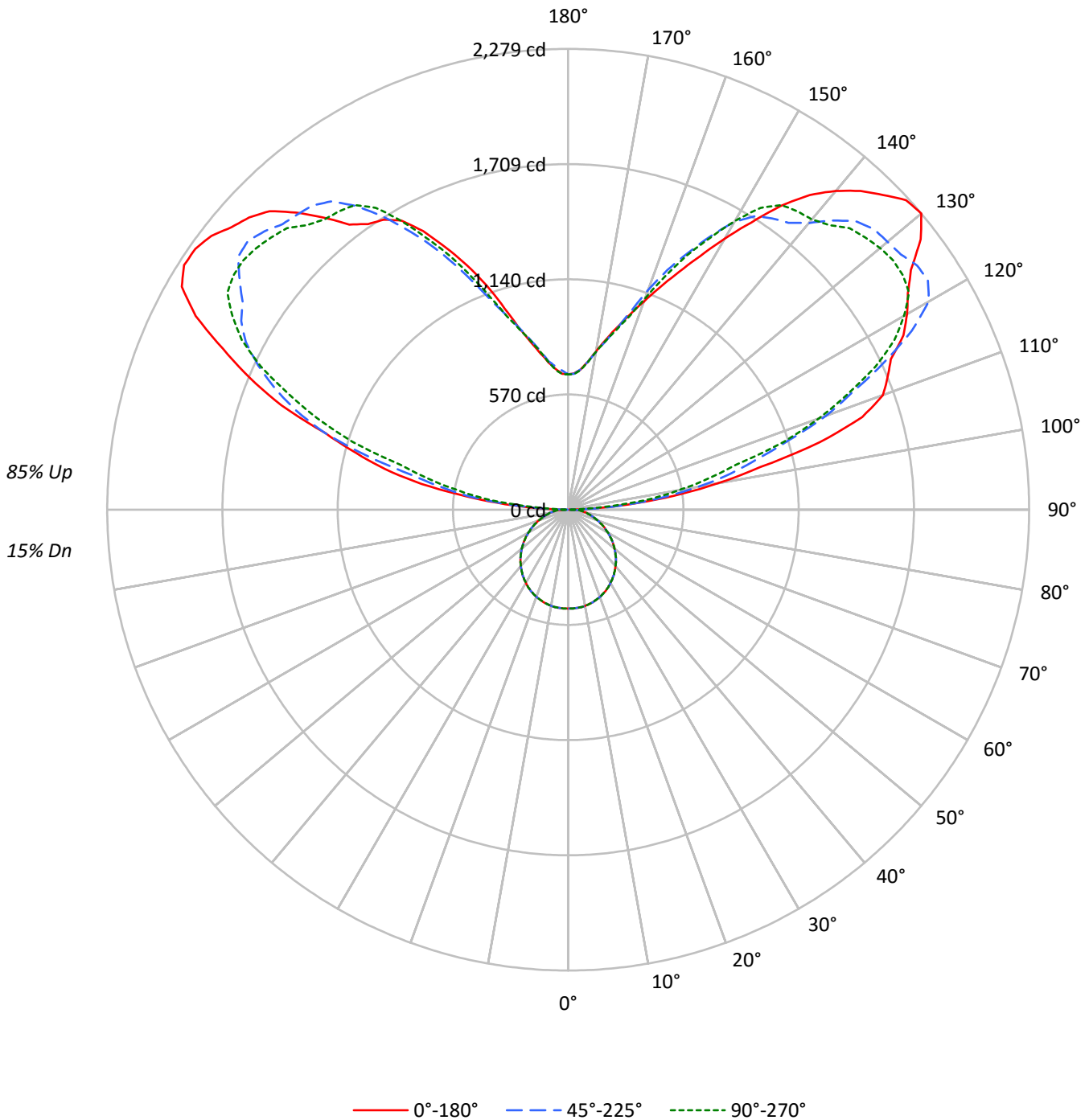
**Summary**

Lumens per Lamp: 12750 (1 lamp)  
Luminaire Lumens: 10108.0 lumens  
Efficiency: 79.3%  
Efficacy: 235.1 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 (A<sub>in</sub>): 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	78	78	78	78	69	69	69	69	51	51	51	34	34	34	19	19	19	12
1	71	68	65	62	62	59	57	55	44	42	41	30	29	28	16	16	16	10
2	65	59	54	50	56	52	48	45	38	36	34	26	24	23	14	14	13	8
3	59	52	46	42	51	45	41	37	34	31	28	23	21	19	13	12	11	7
4	54	46	40	35	47	40	35	31	30	26	24	20	18	16	11	10	9	6
5	49	40	34	30	43	36	30	27	26	23	20	18	16	14	10	9	8	5
6	45	36	30	26	39	32	27	23	24	20	17	16	14	12	9	8	7	4
7	42	32	26	22	36	29	23	20	21	18	15	15	12	11	8	7	6	4
8	38	29	23	19	33	26	21	17	19	16	13	13	11	9	7	6	5	3
9	36	26	21	17	31	23	19	15	18	14	12	12	10	8	7	6	5	3
10	33	24	19	15	29	21	17	13	16	13	10	11	9	7	6	5	4	3

**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	0.5	0.4
10°-20°	133.5	1.3	1.0
20°-30°	203.1	2.0	1.6
30°-40°	245.8	2.4	1.9
40°-50°	256.7	2.5	2.0
50°-60°	235.8	2.3	1.8
60°-70°	188.3	1.9	1.5
70°-80°	128.2	1.3	1.0
80°-90°	66.7	0.7	0.5
90°-100°	319.5	3.2	2.5
100°-110°	1073.3	10.6	8.4
110°-120°	1698.1	16.8	13.3
120°-130°	1839.3	18.2	14.4
130°-140°	1562.9	15.5	12.3
140°-150°	1127.4	11.2	8.8
150°-160°	642.7	6.4	5.0
160°-170°	270.8	2.7	2.1
170°-180°	69.7	0.7	0.5
0°-30°	382.9	3.8	3.0
0°-40°	628.7	6.2	4.9
0°-60°	1121.2	11.1	8.8
0°-90°	1504.2	14.9	11.8
90°-120°	3091.0	30.6	24.2
90°-150°	7620.6	75.4	59.8
90°-180°	8604.0	85.1	67.5
0°-180°	10108.0	100.0	79.3

**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°	3	9	2	5	13	22
95°	297	296	223	281	312	340
105°	1287	968	857	1031	1086	1315
115°	1760	1724	1677	1692	1884	1768
125°	2068	2106	2020	1983	2250	1872
135°	2201	2016	1968	1997	2088	1701
145°	1834	1759	1839	1834	1724	1150
155°	1298	1401	1385	1345	1429	611
165°	933	923	921	929	925	270
175°	695	696	692	709	697	70
180°	669	669	669	669	669	



TEST NUMBER: 253P231

CATALOG NUMBER: 1215-XX-36-CFL/3/40-T5C/1/40

**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°	3	6	9	10	2	4	5	7	13
92.5°	101	102	120	99	55	86	103	115	117
95°	297	272	296	284	223	272	281	284	312
97.5°	527	461	478	483	417	496	484	459	509
100°	752	576	656	681	554	696	630	606	736
102.5°	973	713	822	870	709	885	789	758	927
105°	1287	916	968	1025	857	1184	1031	903	1086
107.5°	1524	1136	1145	1199	1119	1431	1260	1087	1259
110°	1656	1314	1356	1437	1319	1587	1431	1276	1509



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	1709	1485	1523	1637	1496	1682	1570	1440	1704
115°	1760	1645	1724	1835	1677	1759	1692	1646	1884
117.5°	1869	1762	1914	2013	1819	1868	1796	1828	2076
120°	1934	1844	2058	2140	1917	1936	1867	1967	2206
122.5°	1991	1891	2109	2194	1998	1979	1908	2027	2251
125°	2068	1954	2106	2194	2020	2055	1983	2032	2250
127.5°	2196	1993	2073	2158	2025	2150	2056	2003	2224
130°	2279	1985	2061	2127	2013	2195	2067	2006	2173
132.5°	2266	1959	2052	2105	1992	2166	2037	2006	2139
135°	2201	1931	2016	2062	1968	2109	1997	1978	2088
137.5°	2138	1918	1940	1977	1909	2074	1981	1913	1993
140°	2058	1912	1851	1878	1874	2026	1964	1841	1887
142.5°	1962	1888	1788	1793	1860	1955	1922	1800	1777
145°	1834	1828	1759	1750	1839	1845	1834	1780	1724
147.5°	1684	1739	1721	1718	1770	1712	1724	1733	1700
150°	1547	1624	1643	1652	1649	1581	1602	1639	1651
152.5°	1415	1500	1525	1542	1513	1449	1478	1512	1553
155°	1298	1365	1401	1417	1385	1320	1345	1388	1429
157.5°	1192	1227	1283	1297	1247	1200	1212	1268	1309
160°	1096	1099	1156	1168	1112	1092	1093	1140	1181
162.5°	1010	1001	1026	1033	1000	1004	1002	1018	1042
165°	933	927	923	925	921	930	929	923	925
167.5°	861	860	853	850	855	859	860	856	846
170°	795	798	791	788	793	795	797	794	784
172.5°	736	742	736	735	734	736	741	737	733
175°	695	709	696	696	692	695	709	695	697
177.5°	675	691	673	673	671	674	689	675	673
180°	669	669	669	669	669	669	669	669	669

(END OF REPORT)