

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: ITL55889

Luminaire Tested: **HLCFL/6/39W (FIXTURES 1200, 1215, 1220, 1240, 1250, 1270)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-66-11  
Report Number: ITL55889  
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: HLCFL/6/39W (FIXTURES 1200, 1215, 1220, 1240, 1250, 1270)  
Description: FABRICATED SEMI-SPECULAR METAL MOUNTING PLATE, THREE FORMED METAL REFLECTORS WITH PREMIUM SPECULAR FINISH, OPEN SOCKET ENDS AND TOP.  
Light Source: SIX 39-WATT SINGLE ENDED TWIN TUBE FLUORESCENTS, OSRAM 36/39W/RS/4100. LAMPS HORIZONTAL WITH TUBES VERTICAL.  
Ballast/Driver: THREE UNIVERSAL B254PUNV-D

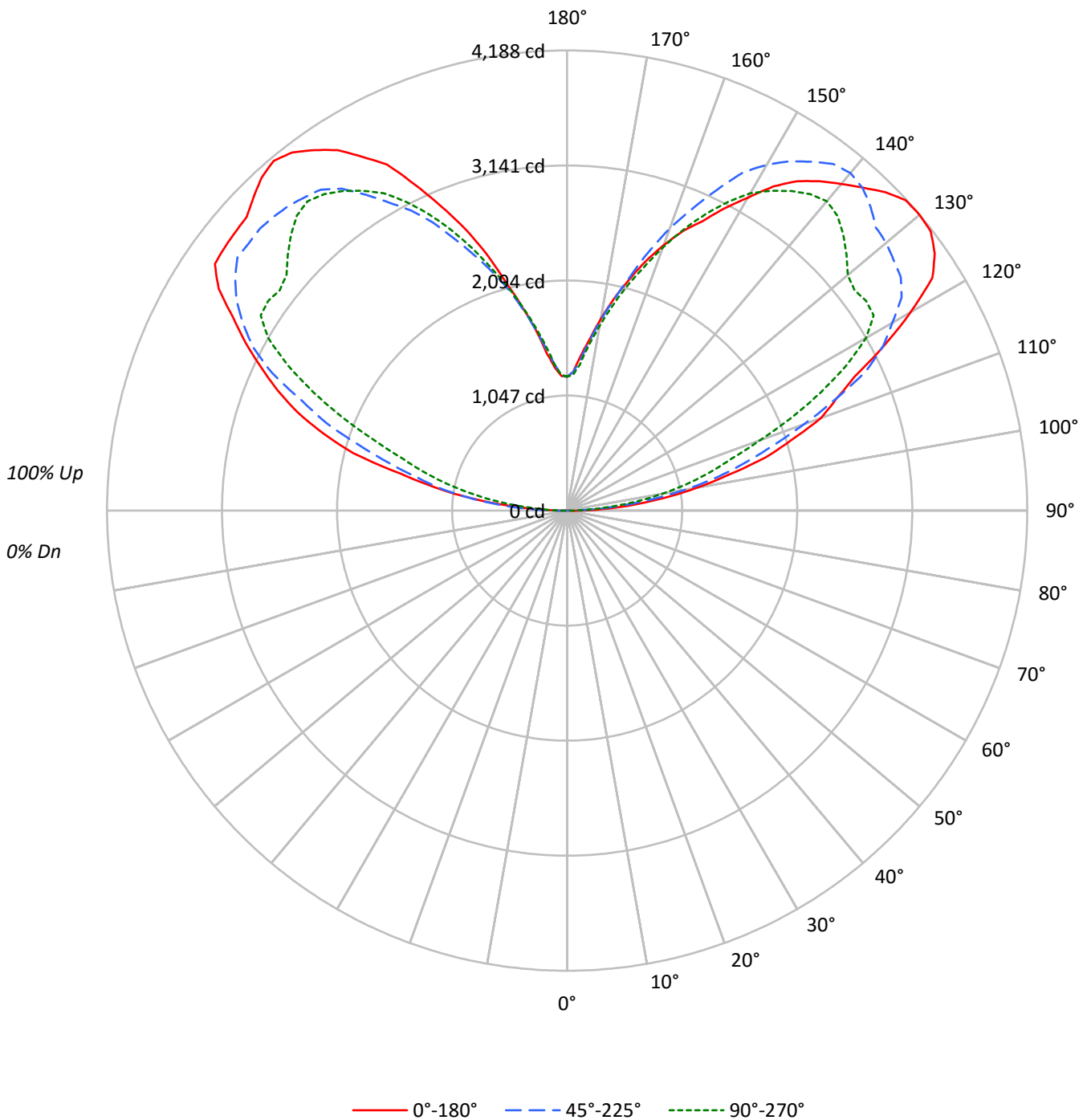
**Summary**

Lumens per Lamp: 2900 (6 lamps)  
Luminaire Lumens: 15938.7 lumens  
Efficiency: 91.6%  
Efficacy: 62.3 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Vertical Cylinder (Dia: 2.56' x H: 0.16')  
CIE Type: Indirect  
  
Input Watts (W): 255.7  
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	87	87	87	87	75	75	75	75	51	51	51	29	29	29	10	10	10	0
1	79	76	72	69	68	65	62	60	44	43	41	26	25	24	8	8	8	0
2	72	66	61	57	62	57	52	49	39	36	34	22	21	20	7	7	7	0
3	66	58	52	47	56	50	45	41	34	31	29	20	18	17	6	6	6	0
4	60	51	44	39	51	44	38	34	30	27	24	17	16	14	6	5	5	0
5	55	45	38	33	47	39	33	29	27	23	20	15	14	12	5	4	4	0
6	50	40	33	28	43	35	29	25	24	20	18	14	12	10	4	4	3	0
7	46	36	29	25	39	31	25	21	21	18	15	12	10	9	4	3	3	0
8	43	32	26	21	36	28	22	19	19	16	13	11	9	8	4	3	3	0
9	40	29	23	19	34	25	20	16	17	14	12	10	8	7	3	3	2	0
10	37	27	20	16	31	23	18	14	16	13	10	9	7	6	3	2	2	0

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	0.0	0.0	0.0
20°-30°	0.0	0.0	0.0
30°-40°	0.0	0.0	0.0
40°-50°	0.0	0.0	0.0
50°-60°	0.0	0.0	0.0
60°-70°	0.0	0.0	0.0
70°-80°	0.0	0.0	0.0
80°-90°	40.9	0.3	0.2
90°-100°	605.8	3.8	3.5
100°-110°	1775.6	11.1	10.2
110°-120°	2839.4	17.8	16.3
120°-130°	3268.8	20.5	18.8
130°-140°	2955.2	18.5	17.0
140°-150°	2315.5	14.5	13.3
150°-160°	1409.7	8.8	8.1
160°-170°	618.6	3.9	3.6
170°-180°	139.9	0.9	0.8
0°-30°	0.0	0.0	0.0
0°-40°	0.0	0.0	0.0
0°-60°	0.0	0.0	0.0
0°-90°	40.9	0.3	0.2
90°-120°	5220.7	32.8	30.0
90°-150°	13760.2	86.3	79.1
90°-180°	15928.0	99.9	91.5
0°-180°	15938.7	100.0	91.6

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	134	33	38	127	33	85
95°	599	467	387	624	561	618
105°	1870	1671	1344	1681	2012	1939
115°	2885	2999	2547	2964	3068	2927
125°	4084	3706	3323	3688	3914	3606
135°	4098	3906	3552	3780	4035	3159
145°	3660	3875	3550	3576	4005	2287
155°	2902	3218	2974	2892	3268	1362
165°	2173	2198	2119	2093	2146	628
175°	1412	1374	1334	1340	1308	146
180°	1218	1218	1218	1218	1218	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0
90°	134	114	33	26	38	137	127	41	33
92.5°	350	296	204	244	181	368	353	250	263
95°	599	543	467	538	387	660	624	494	561
97.5°	898	802	773	846	641	933	907	768	906
100°	1199	1033	1091	1178	876	1247	1180	1062	1226
102.5°	1508	1295	1395	1548	1114	1545	1403	1349	1552
105°	1870	1474	1671	1905	1344	1845	1681	1610	2012
107.5°	2143	1718	1960	2231	1567	2115	1989	1844	2324
110°	2458	2017	2291	2496	1865	2457	2335	2197	2609
112.5°	2650	2329	2639	2800	2208	2770	2610	2568	2849
115°	2885	2643	2999	3064	2547	3060	2964	2859	3068
117.5°	3255	2980	3241	3287	2867	3303	3223	3133	3296
120°	3610	3246	3417	3463	3142	3546	3407	3370	3509
122.5°	3942	3389	3609	3668	3307	3825	3569	3498	3761
125°	4084	3433	3706	3836	3323	4025	3688	3516	3914
127.5°	4172	3475	3746	3891	3296	4103	3784	3512	3931
130°	4188	3520	3790	3925	3334	4062	3783	3552	3942
132.5°	4180	3619	3812	3925	3448	3980	3795	3636	3955
135°	4098	3686	3906	3970	3552	3932	3780	3725	4035
137.5°	3985	3697	3981	4031	3641	3888	3757	3806	4114
140°	3881	3682	4010	4076	3675	3813	3721	3787	4155
142.5°	3777	3667	3977	4076	3630	3699	3682	3725	4109
145°	3660	3591	3875	3995	3550	3576	3576	3643	4005
147.5°	3498	3472	3769	3865	3450	3393	3407	3530	3890
150°	3287	3316	3634	3690	3335	3212	3235	3407	3714
152.5°	3099	3122	3469	3535	3166	3026	3078	3216	3550
155°	2902	2940	3218	3279	2974	2863	2892	2996	3268
157.5°	2754	2758	2971	3004	2767	2659	2676	2759	2997
160°	2570	2536	2733	2750	2548	2474	2473	2543	2737
162.5°	2381	2332	2469	2454	2321	2276	2286	2287	2455
165°	2173	2145	2198	2202	2119	2087	2093	2065	2146
167.5°	1976	1935	1965	1943	1909	1879	1886	1844	1902
170°	1774	1738	1763	1718	1707	1674	1681	1636	1681
172.5°	1574	1540	1552	1507	1518	1489	1490	1445	1453
175°	1412	1365	1374	1326	1334	1323	1340	1296	1308
177.5°	1262	1245	1262	1235	1239	1221	1228	1217	1226
180°	1218	1218	1218	1218	1218	1218	1218	1218	1218

(END OF REPORT)