

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: FAIL-SAFE

Report Number: 01285

Luminaire Tested: **FLRC-80**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 01285
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FLRC-80
Description: PLASTIC LENS
Light Source: TWO F40T12/CW RATED 3150 LUMENS.
Ballast/Driver: MAGNETEK 446-L-VLH-TC-P

Summary

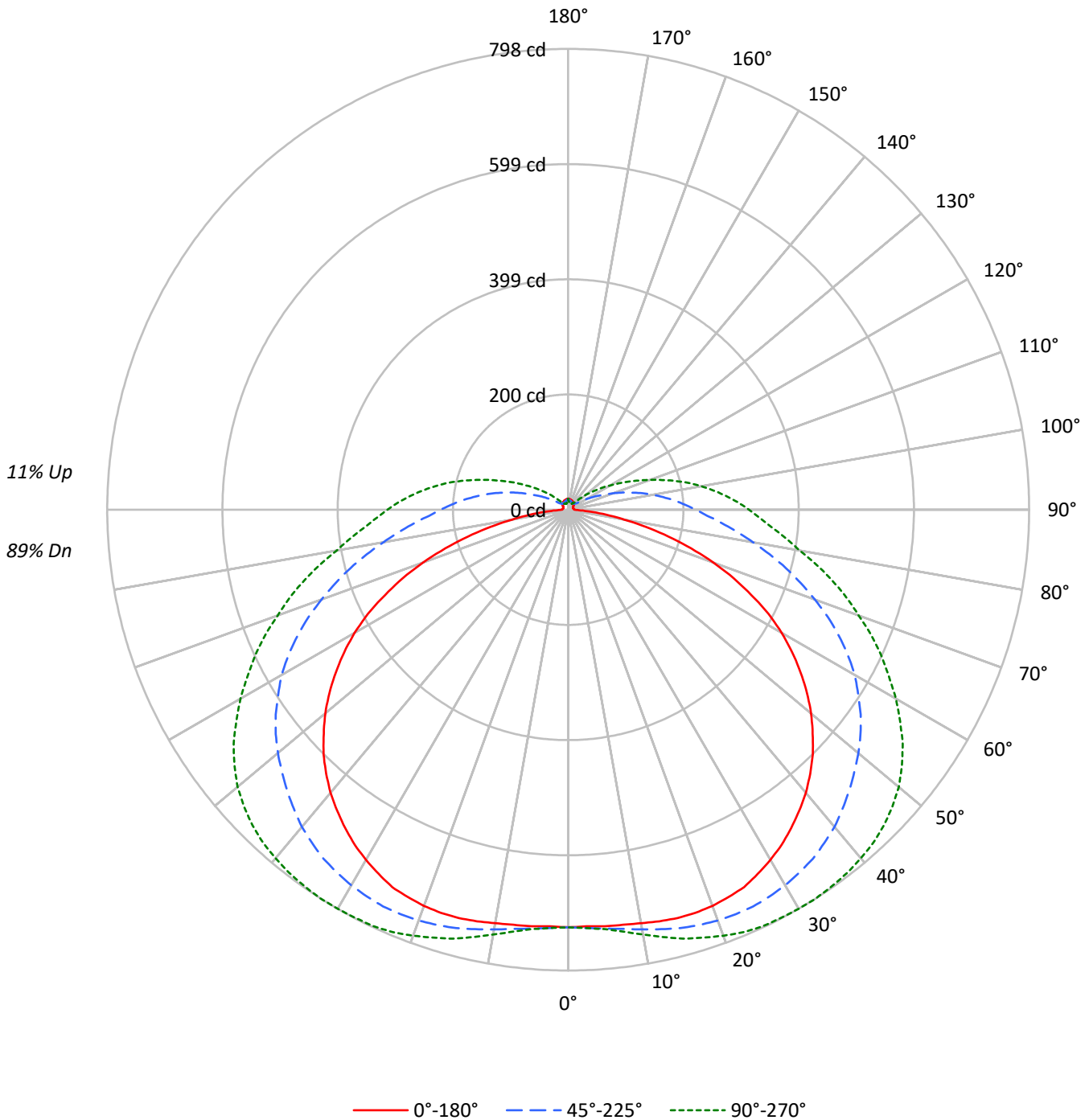
Lumens per Lamp: 3150 (2 lamps)
Luminaire Lumens: 3717.6 lumens
Efficiency: 59.0%
Efficacy: 44.3 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.65 / 1.66
Luminous Opening: Rectangular w/ Sides (W: 0.89' x L: 4.42' x H: 0.29')
CIE Type: Semi-Direct

Input Watts (W): 84
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	69	69	69	69	66	66	66	66	62	62	62	58	58	58	54	54	54	52
1	61	57	54	51	58	55	52	50	51	49	47	48	46	44	45	43	42	40
2	54	49	44	40	52	47	43	39	44	40	37	41	38	35	38	36	33	32
3	49	42	37	32	47	41	36	32	38	34	30	35	32	29	33	30	27	26
4	45	37	31	27	43	36	30	26	33	29	25	31	27	24	29	26	23	21
5	41	33	27	23	39	31	26	22	29	25	21	28	24	20	26	22	20	18
6	38	29	23	19	36	28	23	19	26	22	18	25	21	18	23	20	17	15
7	35	26	21	17	33	25	20	16	24	19	16	22	18	15	21	17	15	13
8	32	24	18	15	31	23	18	15	22	17	14	20	16	14	19	16	13	12
9	30	22	17	13	29	21	16	13	20	16	12	19	15	12	18	14	12	10
10	28	20	15	12	27	19	15	12	18	14	11	17	14	11	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1978	1978	1978
5°	1977	1952	1947
10°	1997	1955	1963
15°	2038	1978	2003
20°	2076	2003	2043
25°	2112	2027	2086
30°	2131	2046	2122
35°	2149	2065	2165
40°	2167	2078	2210
45°	2175	2085	2256
50°	2168	2100	2290
55°	2142	2113	2302
60°	2098	2120	2291
65°	1987	2100	2279
70°	1810	2063	2258
75°	1529	2028	2257
80°	1137	1993	2252
85°	664	2013	2352



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	69.7	1.9	1.1	0°	723	723	723	723	723	
10°-20°	212.7	5.7	3.4	5°	724	726	728	729	729	69
20°-30°	350.0	9.4	5.6	15°	732	740	750	763	769	207
30°-40°	461.0	12.4	7.3	25°	721	733	758	784	796	332
40°-50°	530.0	14.3	8.4	35°	673	692	738	779	796	421
50°-60°	542.5	14.6	8.6	45°	599	623	688	750	773	461
60°-70°	490.1	13.2	7.8	55°	491	529	618	683	707	439
70°-80°	384.3	10.3	6.1	65°	350	414	517	576	598	346
80°-90°	263.7	7.1	4.2	75°	180	287	390	452	473	191
90°-100°	180.8	4.9	2.9	85°	37	158	267	335	354	44
100°-110°	112.2	3.0	1.8	90°	11	114	221	292	313	7
110°-120°	58.4	1.6	0.9	95°	10	84	184	253	274	8
120°-130°	27.4	0.7	0.4	105°	9	33	114	172	192	10
130°-140°	13.3	0.4	0.2	115°	9	12	57	100	115	9
140°-150°	8.9	0.2	0.1	125°	11	11	22	49	60	10
150°-160°	6.7	0.2	0.1	135°	13	12	15	20	24	10
160°-170°	4.3	0.1	0.1	145°	15	14	14	14	14	9
170°-180°	1.6	0.0	0.0	155°	17	15	14	14	12	8
0°-30°	632.5	17.0	10.0	165°	18	17	16	14	11	5
0°-40°	1093.5	29.4	17.4	175°	19	19	17	15	14	2
0°-60°	2166.0	58.3	34.4	180°	19	19	19	19	19	
0°-90°	3304.2	88.9	52.4							
90°-120°	351.3	9.4	5.6							
90°-150°	400.9	10.8	6.4							
90°-180°	413.0	11.1	6.6							
0°-180°	3717.6	100.0	59.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	723	723	723	723	723
2.5°	722	724	725	725	725
5°	724	726	728	729	729
7.5°	725	728	732	735	737
10°	727	732	738	744	747
12.5°	730	736	744	754	758
15°	732	740	750	763	769
17.5°	732	740	754	770	777
20°	730	740	757	777	785
22.5°	726	738	758	782	792
25°	721	733	758	784	796
27.5°	711	724	755	785	797
30°	700	715	751	785	798
32.5°	688	705	745	783	798
35°	673	692	738	779	796
37.5°	657	677	728	774	793
40°	640	660	717	768	788
42.5°	620	643	703	760	782
45°	599	623	688	750	773
47.5°	574	601	672	736	761
50°	549	579	656	723	747
52.5°	521	555	638	704	728
55°	491	529	618	683	707
57.5°	460	501	595	659	681
60°	427	474	573	633	655
62.5°	391	444	546	605	626
65°	350	414	517	576	598
67.5°	310	384	487	546	568
70°	267	353	454	515	535
72.5°	223	320	422	484	505
75°	180	287	390	452	473
77.5°	138	253	357	421	440
80°	99	219	325	390	407
82.5°	66	187	295	361	380
85°	37	158	267	335	354
87.5°	18	133	241	311	332
90°	11	114	221	292	313
92.5°	10	97	202	272	294
95°	10	84	184	253	274
97.5°	10	69	166	233	254
100°	10	56	148	213	234
102.5°	9	44	132	193	214
105°	9	33	114	172	192
107.5°	9	24	99	153	171
110°	9	17	83	135	151



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	9	13	69	116	132
115°	9	12	57	100	115
117.5°	10	11	46	85	99
120°	10	11	37	72	84
122.5°	11	11	28	60	72
125°	11	11	22	49	60
127.5°	11	11	18	40	49
130°	13	13	17	33	40
132.5°	13	12	15	25	31
135°	13	12	15	20	24
137.5°	13	12	15	17	19
140°	14	13	14	16	16
142.5°	15	13	14	15	15
145°	15	14	14	14	14
147.5°	15	14	14	13	12
150°	16	15	14	14	12
152.5°	16	15	14	14	12
155°	17	15	14	14	12
157.5°	17	16	15	14	11
160°	17	17	15	14	11
162.5°	17	17	15	14	11
165°	18	17	16	14	11
167.5°	18	17	16	14	11
170°	18	18	16	14	13
172.5°	19	18	17	14	13
175°	19	19	17	15	14
177.5°	19	19	17	15	15
180°	19	19	19	19	19

(END OF REPORT)