

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: 01284

Luminaire Tested: **TTPC-80**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 01284
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: TTPC-80
Description: FAIL-SAFE FORMED STEEL HOUSING
WHITE ENAMEL REFLECTOR
CLEAR PLASTIC LENS
Light Source: TWO F40W/30/RS TWIN TUBE RATED 3150 LUMENS
Ballast/Driver: -

Summary

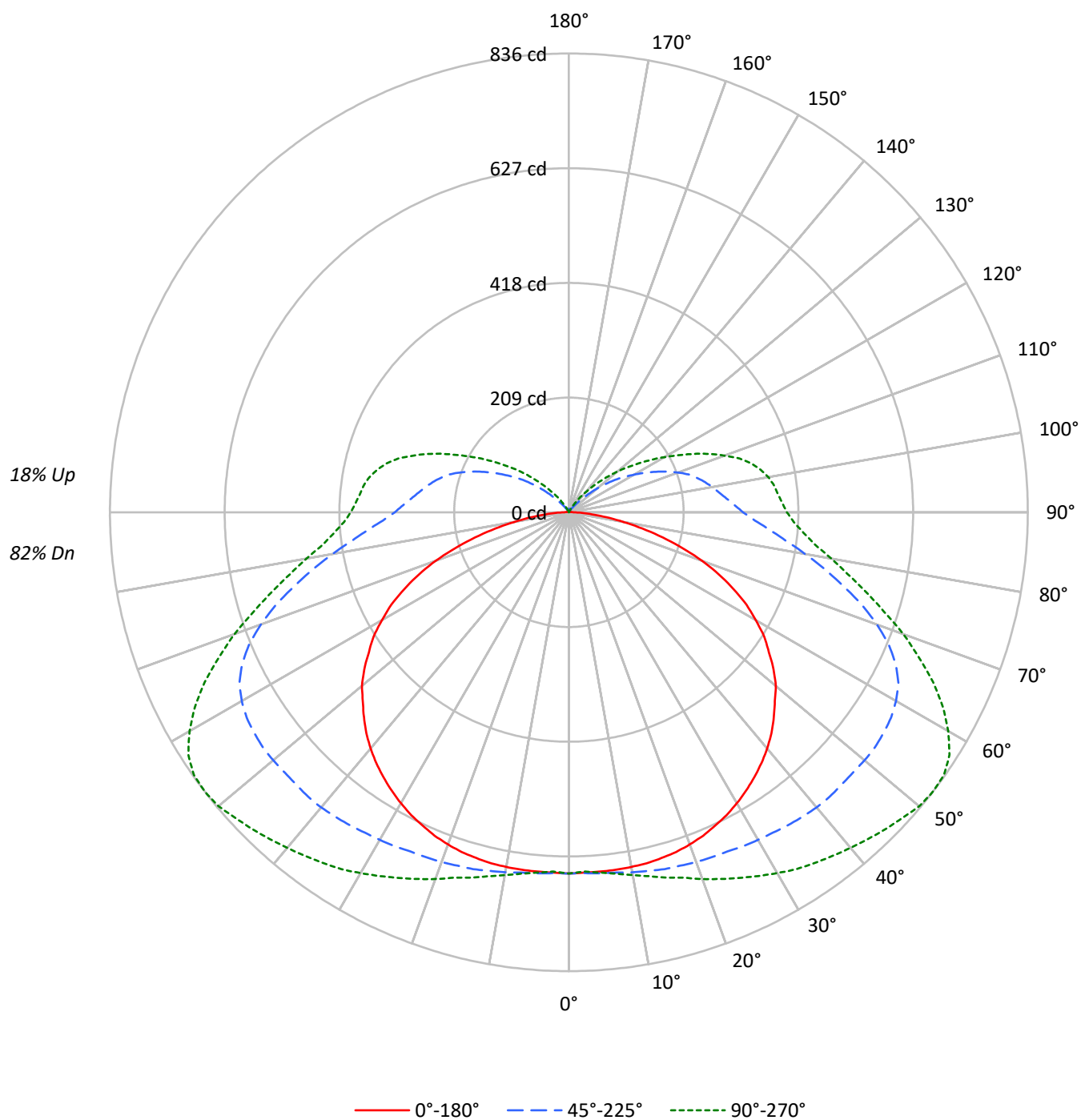
Lumens per Lamp: 3150 (2 lamps)
Luminaire Lumens: 4319.8 lumens
Efficiency: 68.6%
Efficacy: 63.5 lumens/watt
Spacing Criteria (0/90/45): 1.38 / 1.81 / 1.82
Luminous Opening: Rectangular w/ Sides (W: 0.46' x L: 4.19' x H: 0.34')
CIE Type: Semi-Direct

Input Watts (W): 68
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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	79	79	79	79	76	76	76	76	70	70	70	64	64	64	59	59	59
1	69	65	61	57	66	62	58	55	57	54	51	52	50	48	48	46	44
2	62	55	49	44	59	52	47	43	48	44	40	44	40	37	40	37	35
3	55	47	40	35	53	45	39	34	41	36	32	37	33	30	34	31	28
4	50	41	34	29	48	39	33	28	36	30	26	33	28	25	30	26	23
5	46	36	29	24	43	34	28	23	32	26	22	29	24	21	26	22	19
6	42	32	25	21	40	31	24	20	28	23	19	26	21	18	24	20	17
7	39	29	22	18	37	28	22	17	25	20	16	23	19	15	21	17	14
8	36	26	20	15	34	25	19	15	23	18	14	21	17	13	20	16	13
9	33	24	18	14	32	23	17	13	21	16	13	19	15	12	18	14	11
10	31	22	16	12	30	21	15	12	19	15	11	18	14	11	17	13	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3675	3675	3675
5°	3657	3521	3470
10°	3668	3426	3366
15°	3689	3368	3325
20°	3718	3327	3330
25°	3741	3308	3368
30°	3770	3328	3431
35°	3800	3375	3504
40°	3836	3442	3591
45°	3857	3509	3706
50°	3898	3611	3848
55°	3883	3728	3950
60°	3849	3833	3909
65°	3726	3869	3742
70°	3445	3759	3491
75°	2931	3525	3215
80°	2225	3276	3004
85°	1396	3082	2909



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	63.1	1.5	1.0	0°	658	658	658	658	658	
10°-20°	190.7	4.4	3.0	5°	657	660	660	661	659	63
20°-30°	316.7	7.3	5.0	15°	652	661	673	684	689	185
30°-40°	434.2	10.1	6.9	25°	630	650	682	720	735	291
40°-50°	532.5	12.3	8.5	35°	589	624	696	762	780	369
50°-60°	600.3	13.9	9.5	45°	528	587	702	790	816	408
60°-70°	593.4	13.7	9.4	55°	445	547	700	801	834	398
70°-80°	484.7	11.2	7.7	65°	331	501	657	719	732	326
80°-90°	348.0	8.1	5.5	75°	177	394	517	554	560	187
90°-100°	270.0	6.3	4.3	85°	42	239	367	419	429	47
100°-110°	217.6	5.0	3.5	90°	10	180	317	383	397	7
110°-120°	146.4	3.4	2.3	95°	4	139	288	365	382	3
120°-130°	78.7	1.8	1.2	105°	3	85	242	326	344	3
130°-140°	31.5	0.7	0.5	115°	3	44	175	242	252	3
140°-150°	8.3	0.2	0.1	125°	3	14	103	151	155	3
150°-160°	2.1	0.0	0.0	135°	3	6	37	72	79	2
160°-170°	1.1	0.0	0.0	145°	3	5	7	21	26	2
170°-180°	0.4	0.0	0.0	155°	3	5	6	4	1	1
0°-30°	570.5	13.2	9.1	165°	3	5	6	3	0	1
0°-40°	1004.7	23.3	15.9	175°	3	5	6	3	0	0
0°-60°	2137.5	49.5	33.9	180°	3	5	5	3	0	
0°-90°	3563.7	82.5	56.6							
90°-120°	634.0	14.7	10.1							
90°-150°	752.5	17.4	11.9							
90°-180°	756.0	17.5	12.0							
0°-180°	4319.8	100.0	68.6							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	658	658	658	658	658
2.5°	657	660	658	657	655
5°	657	660	660	661	659
7.5°	657	660	662	665	664
10°	656	662	666	671	671
12.5°	655	661	669	677	679
15°	652	661	673	684	689
17.5°	649	660	675	692	698
20°	644	658	678	701	711
22.5°	638	655	680	710	723
25°	630	650	682	720	735
27.5°	622	645	686	731	747
30°	612	638	689	743	759
32.5°	601	632	692	753	771
35°	589	624	696	762	780
37.5°	576	616	699	771	789
40°	562	607	702	778	798
42.5°	546	597	703	784	807
45°	528	587	702	790	816
47.5°	509	577	702	796	824
50°	492	568	703	800	833
52.5°	470	557	703	802	836
55°	445	547	700	801	834
57.5°	422	538	696	793	822
60°	393	527	688	776	798
62.5°	365	516	677	753	768
65°	331	501	657	719	732
67.5°	296	483	631	681	690
70°	258	459	597	639	648
72.5°	217	429	559	597	602
75°	177	394	517	554	560
77.5°	137	356	477	515	520
80°	101	316	437	478	485
82.5°	69	276	399	445	452
85°	42	239	367	419	429
87.5°	23	207	339	398	410
90°	10	180	317	383	397
92.5°	6	159	302	373	389
95°	4	139	288	365	382
97.5°	3	122	276	358	377
100°	3	109	265	350	369
102.5°	3	96	254	340	358
105°	3	85	242	326	344
107.5°	3	75	229	310	326
110°	3	63	212	289	302



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3	54	194	266	278
115°	3	44	175	242	252
117.5°	3	35	156	217	225
120°	3	27	137	193	201
122.5°	3	20	120	172	178
125°	3	14	103	151	155
127.5°	3	9	85	131	135
130°	3	7	68	110	116
132.5°	3	6	52	90	97
135°	3	6	37	72	79
137.5°	3	5	25	57	63
140°	3	5	17	43	49
142.5°	3	5	11	31	37
145°	3	5	7	21	26
147.5°	3	5	6	13	16
150°	3	5	6	8	10
152.5°	3	5	6	4	4
155°	3	5	6	4	1
157.5°	3	5	6	4	1
160°	3	5	6	3	0
162.5°	3	5	6	3	0
165°	3	5	6	3	0
167.5°	3	5	6	3	0
170°	3	5	6	3	0
172.5°	3	5	6	3	0
175°	3	5	6	3	0
177.5°	3	5	6	3	0
180°	3	5	5	3	0

(END OF REPORT)