

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: 01272

Luminaire Tested: **TTDWPP9**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 01272
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: TTDWPP9
Description: FAIL-SAFE CAST ALUMINUM HOUSING
FORMED WHITE ENAMEL REFLECTOR
WHITE VERTICAL PLASTIC ENCLOSURE
Light Source: ONE 9 WATT F9TT/35K RATED 600 LUMENS
Ballast/Driver: -

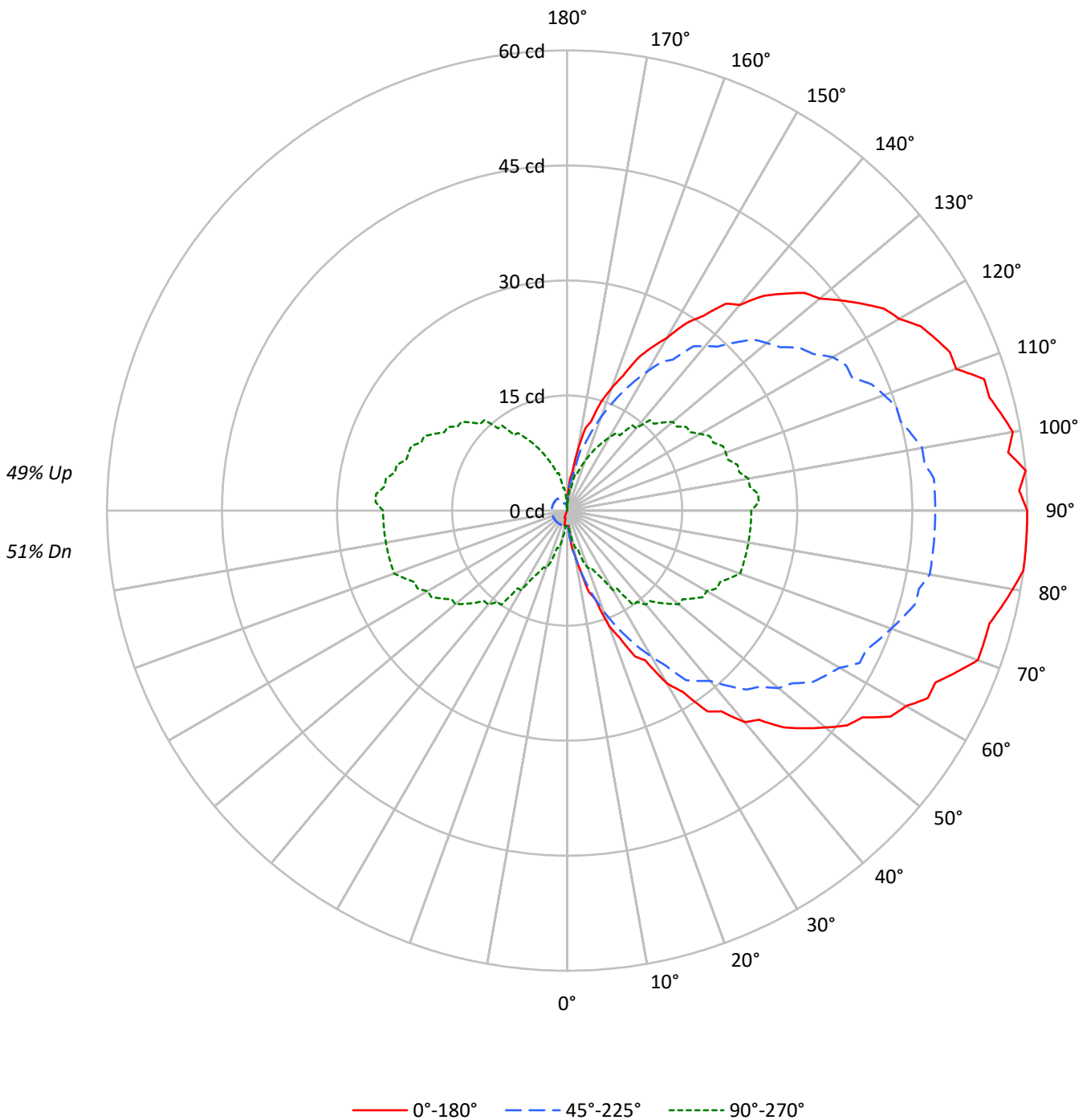
Summary

Lumens per Lamp: 600 (1 lamp)
Luminaire Lumens: 252.2 lumens
Efficiency: 42.0%
Efficacy: 18.0 lumens/watt
Spacing Criteria (0/90/45): 5.77 / 5.4 / 5.05
Luminous Opening: Rectangular w/ Sides (W: 0.4' x L: 0.19' x H: 0.94')
CIE Type: General Diffuse

Input Watts (W): 14
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	45	45	45	45	42	42	42	42	35	35	35	29	29	29	24	24	24	21
1	39	36	33	31	35	33	31	28	27	25	24	22	21	19	17	16	15	13
2	34	30	26	23	31	27	24	21	22	20	18	18	16	14	14	12	11	9
3	31	26	22	18	28	23	20	17	19	16	14	15	13	11	11	10	8	6
4	28	22	18	15	25	20	16	14	16	13	11	13	11	9	10	8	7	5
5	25	19	15	12	23	18	14	11	14	11	9	11	9	7	9	7	5	4
6	23	17	13	10	21	16	12	9	13	10	8	10	8	6	8	6	4	3
7	21	15	11	9	19	14	10	8	11	9	7	9	7	5	7	5	4	2
8	20	14	10	7	18	13	9	7	10	8	6	8	6	4	6	4	3	2
9	18	12	9	6	16	11	8	6	9	7	5	7	5	4	6	4	3	2
10	17	11	8	6	15	10	7	5	9	6	4	7	5	3	5	4	2	1

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	283	283	283
5°	198	236	198
10°	461	407	154
15°	694	450	63
20°	861	650	54
25°	992	671	0
30°	1103	833	0
35°	1239	980	0
40°	1292	995	0
45°	1347	1016	0
50°	1406	1102	0
55°	1439	1134	0
60°	1510	1173	0
65°	1530	1221	0
70°	1617	1333	0
75°	1603	1344	0
80°	1656	1366	0
85°	1694	1400	0



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	0.3	0.1	0.0	0°	2	2	2	2	2	
10°-20°	1.8	0.7	0.3	5°	2	3	2	2	2	0
20°-30°	4.7	1.9	0.8	15°	11	10	5	2	1	3
30°-40°	9.1	3.6	1.5	25°	21	18	9	2	0	10
40°-50°	14.0	5.6	2.3	35°	32	27	15	2	0	20
50°-60°	19.2	7.6	3.2	45°	40	33	17	2	0	31
60°-70°	23.8	9.4	4.0	55°	47	39	20	2	0	43
70°-80°	27.0	10.7	4.5	65°	53	43	22	2	0	53
80°-90°	28.6	11.4	4.8	75°	57	47	24	2	0	61
90°-100°	28.4	11.3	4.7	85°	60	48	24	2	0	49
100°-110°	26.3	10.4	4.4	90°	60	48	24	2	0	33
110°-120°	22.7	9.0	3.8	95°	60	48	25	2	0	48
120°-130°	18.2	7.2	3.0	105°	57	45	23	2	0	60
130°-140°	13.3	5.3	2.2	115°	53	41	21	2	0	52
140°-150°	8.6	3.4	1.4	125°	47	37	19	2	0	42
150°-160°	4.4	1.7	0.7	135°	40	31	16	2	0	31
160°-170°	1.6	0.6	0.3	145°	31	24	12	1	0	20
170°-180°	0.2	0.1	0.0	155°	22	17	9	1	0	10
0°-30°	6.7	2.7	1.1	165°	12	9	5	1	0	4
0°-40°	15.8	6.3	2.6	175°	4	3	2	0	0	0
0°-60°	49.0	19.4	8.2	180°	1	1	1	0	0	
0°-90°	128.4	50.9	21.4							
90°-120°	77.5	30.7	12.9							
90°-150°	117.6	46.6	19.6							
90°-180°	124.0	49.2	20.7							
0°-180°	252.2	100.0	42.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2	2	2	2	2	2	2	2	2
2.5°	2	2	2	2	2	2	2	2	2
5°	2	3	3	3	2	2	2	2	2
7.5°	5	5	5	4	3	2	2	2	2
10°	6	7	6	5	4	3	2	1	2
12.5°	8	9	8	7	5	3	2	1	1
15°	11	11	10	8	5	3	2	1	1
17.5°	12	14	12	10	7	4	2	1	1
20°	16	16	14	12	8	4	2	1	1
22.5°	18	18	16	13	8	4	2	1	0
25°	21	20	18	14	9	5	2	0	0
27.5°	22	23	20	16	10	5	2	1	0
30°	26	26	22	18	12	6	2	0	0
32.5°	28	28	24	19	12	7	2	0	0
35°	32	30	27	21	15	8	2	0	0
37.5°	33	32	28	22	15	7	2	0	0
40°	36	34	29	23	16	8	2	0	0
42.5°	37	36	31	25	16	9	2	0	0
45°	40	38	33	26	17	9	2	0	0
47.5°	42	40	34	27	18	9	2	0	0
50°	44	42	36	28	19	9	2	0	0
52.5°	46	44	37	29	19	10	2	0	0
55°	47	45	39	31	20	10	2	0	0
57.5°	50	47	40	32	21	11	2	0	0
60°	51	48	41	33	21	11	2	0	0
62.5°	53	49	43	34	22	12	2	0	0
65°	53	51	43	34	22	12	2	0	0
67.5°	55	52	44	35	23	12	2	0	0
70°	57	53	45	36	24	12	2	0	0
72.5°	57	54	46	36	24	12	2	0	0
75°	57	55	47	36	24	12	2	0	0
77.5°	58	55	47	37	24	12	2	0	0
80°	59	55	48	38	24	12	2	0	0
82.5°	60	56	48	38	24	12	2	0	0
85°	60	55	48	38	24	13	2	0	0
87.5°	60	56	48	38	24	13	2	0	0
90°	60	56	48	38	24	12	2	0	0
92.5°	59	56	48	37	25	13	2	0	0
95°	60	55	48	37	25	13	2	0	0
97.5°	58	55	47	37	24	12	2	0	0
100°	59	54	47	36	24	12	2	0	0
102.5°	58	53	46	36	23	12	2	0	0
105°	57	53	45	36	23	12	2	0	0
107.5°	57	52	45	35	22	12	2	0	0
110°	54	51	44	34	22	12	2	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	54	49	43	34	22	11	2	0	0
115°	53	48	41	33	21	10	2	0	0
117.5°	52	48	41	32	21	10	2	0	0
120°	50	46	40	31	20	10	2	0	0
122.5°	49	45	38	30	19	10	2	0	0
125°	47	43	37	29	19	10	2	0	0
127.5°	45	41	35	28	18	9	2	0	0
130°	43	40	34	26	18	9	2	0	0
132.5°	42	38	33	25	17	9	2	0	0
135°	40	36	31	24	16	8	2	0	0
137.5°	38	34	29	23	16	8	2	0	0
140°	35	32	28	22	14	7	2	0	0
142.5°	34	31	27	21	14	7	2	0	0
145°	31	28	24	19	12	6	1	0	0
147.5°	29	27	23	18	12	7	1	0	0
150°	26	24	21	16	11	5	1	0	0
152.5°	24	21	19	15	10	5	1	0	0
155°	22	19	17	13	9	4	1	0	0
157.5°	19	17	15	12	8	4	1	0	0
160°	17	15	13	10	7	3	1	0	0
162.5°	15	12	11	9	6	3	1	0	0
165°	12	10	9	7	5	3	1	0	0
167.5°	11	9	8	7	5	3	1	0	0
170°	8	6	5	5	3	2	1	0	0
172.5°	5	4	4	3	3	1	0	0	0
175°	4	3	3	2	2	0	0	0	0
177.5°	2	2	2	1	0	0	0	0	0
180°	1	1	1	1	1	0	0	0	0

(END OF REPORT)