

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: 01271

Luminaire Tested: **TTDCPP9**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 01271
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: TTDCPP9
Description: FAIL-SAFE CAST ALUMINUM HOUSING
FORMED WHITE ENAMEL REFLECTOR
CLEAR VERTICAL PLASTIC ENCLOSURE
Light Source: ONE 9 WATT F9TT/35K RATED 600 LUMENS
Ballast/Driver: -

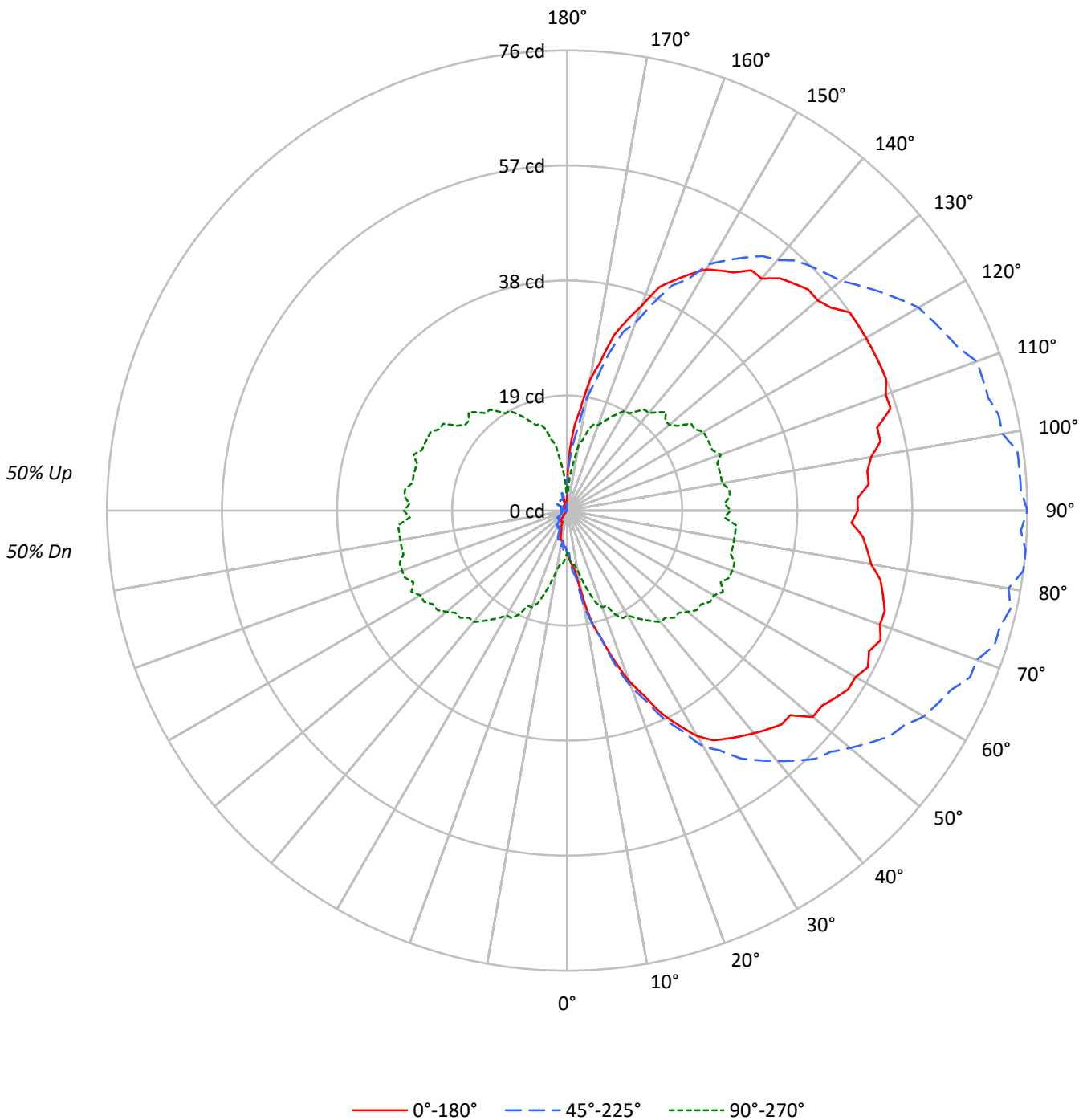
Summary

Lumens per Lamp: 600 (1 lamp)
Luminaire Lumens: 354.1 lumens
Efficiency: 59.0%
Efficacy: 25.3 lumens/watt
Spacing Criteria (0/90/45): 3.44 / 3.46 / 3.69
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	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	63	63	63	63	58	58	58	58	49	49	49	41	41	41	33	33	33	33	33	33	33	33	33	33	33	33	33	33	30																	
1	55	51	48	44	50	47	44	41	39	36	34	32	30	28	25	24	22	25	24	22	25	24	22	25	24	22	25	24	22	19																
2	49	43	38	34	44	39	35	31	32	29	26	26	23	21	20	18	17	20	18	17	20	18	17	20	18	17	20	18	17	14																
3	44	37	31	27	40	34	29	25	28	24	21	22	19	17	17	15	13	17	15	13	17	15	13	17	15	13	17	15	13	10																
4	40	32	26	22	36	29	24	20	24	20	17	19	16	13	15	12	10	15	12	10	15	12	10	15	12	10	15	12	10	8																
5	36	28	22	18	33	26	20	17	21	17	14	17	14	11	13	10	8	13	10	8	13	10	8	13	10	8	13	10	8	6																
6	33	25	19	15	30	23	18	14	19	15	12	15	12	9	11	9	7	11	9	7	11	9	7	11	9	7	11	9	7	5																
7	30	22	17	13	27	20	15	12	17	13	10	13	10	8	10	8	6	10	8	6	10	8	6	10	8	6	10	8	6	4																
8	28	20	15	11	25	18	14	10	15	11	9	12	9	7	9	7	5	9	7	5	9	7	5	9	7	5	9	7	5	4																
9	26	18	13	10	24	17	12	9	14	10	7	11	8	6	8	6	4	8	6	4	8	6	4	8	6	4	8	6	4	3																
10	24	16	12	9	22	15	11	8	12	9	7	10	7	5	8	6	4	8	6	4	8	6	4	8	6	4	8	6	4	3																

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	991	991	991
5°	893	1061	595
10°	1075	1017	384
15°	1387	1260	252
20°	1614	1381	161
25°	1748	1417	95
30°	1824	1388	85
35°	1782	1438	39
40°	1723	1493	0
45°	1684	1495	0
50°	1693	1507	0
55°	1653	1530	0
60°	1628	1564	0
65°	1588	1554	0
70°	1561	1611	0
75°	1518	1568	0
80°	1432	1594	0
85°	1384	1633	0



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	0.8	0.2	0.1	0°	7	7	7	7	7	
10°-20°	4.0	1.1	0.7	5°	9	10	9	7	6	1
20°-30°	9.3	2.6	1.5	15°	22	22	14	5	4	7
30°-40°	15.5	4.4	2.6	25°	37	38	19	4	2	17
40°-50°	21.4	6.0	3.6	35°	46	50	22	3	1	29
50°-60°	27.2	7.7	4.5	45°	50	58	25	2	0	39
60°-70°	31.7	8.9	5.3	55°	54	65	27	2	0	48
70°-80°	34.2	9.7	5.7	65°	55	70	28	1	0	55
80°-90°	34.6	9.8	5.8	75°	54	74	28	1	0	57
90°-100°	34.5	9.7	5.7	85°	49	76	28	1	0	40
100°-110°	33.3	9.4	5.6	90°	48	76	27	1	0	26
110°-120°	31.0	8.8	5.2	95°	50	75	27	1	0	41
120°-130°	26.3	7.4	4.4	105°	53	72	26	0	0	57
130°-140°	20.7	5.9	3.5	115°	57	69	26	1	0	56
140°-150°	15.3	4.3	2.5	125°	57	63	25	1	0	50
150°-160°	9.4	2.6	1.6	135°	53	57	23	2	0	41
160°-170°	4.2	1.2	0.7	145°	48	51	20	2	0	30
170°-180°	0.7	0.2	0.1	155°	42	41	17	2	1	19
0°-30°	14.1	4.0	2.3	165°	30	27	14	3	2	9
0°-40°	29.6	8.4	4.9	175°	14	11	6	1	0	2
0°-60°	78.1	22.1	13.0	180°	4	4	4	4	0	
0°-90°	178.6	50.4	29.8							
90°-120°	98.9	27.9	16.5							
90°-150°	161.2	45.5	26.9							
90°-180°	175.0	49.4	29.2							
0°-180°	354.1	100.0	59.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	7	7	7	7	7	7	7	7	7
2.5°	8	8	7	8	8	7	6	7	6
5°	9	10	10	9	9	7	7	7	6
7.5°	10	12	11	10	9	7	5	6	5
10°	14	16	16	13	10	8	6	5	5
12.5°	19	20	19	16	12	8	5	5	5
15°	22	23	22	19	14	9	5	5	4
17.5°	26	28	27	21	16	9	5	4	3
20°	30	32	31	24	17	9	4	3	3
22.5°	33	34	34	26	17	9	3	2	2
25°	37	39	38	29	19	10	4	2	2
27.5°	40	42	41	32	20	11	3	2	2
30°	43	45	45	34	20	11	3	2	2
32.5°	45	46	47	36	21	12	3	2	2
35°	46	48	50	37	22	12	3	1	1
37.5°	47	50	52	38	23	13	2	1	1
40°	48	52	54	40	24	14	2	1	0
42.5°	49	53	56	41	24	14	2	1	0
45°	50	55	58	42	25	15	2	0	0
47.5°	50	56	59	42	25	15	1	0	0
50°	53	58	61	43	26	16	2	0	0
52.5°	53	59	63	44	27	16	2	0	0
55°	54	60	65	45	27	17	2	0	0
57.5°	55	62	66	45	28	17	1	0	0
60°	55	62	68	47	28	17	1	0	0
62.5°	56	64	69	47	29	17	1	0	0
65°	55	63	70	47	28	16	1	0	0
67.5°	56	64	72	48	29	17	1	0	0
70°	55	64	72	48	29	17	1	0	0
72.5°	55	65	74	48	29	16	1	0	0
75°	54	65	74	48	28	16	1	0	0
77.5°	53	64	75	48	28	16	1	0	0
80°	51	64	74	48	28	14	0	0	0
82.5°	50	65	76	48	28	14	1	0	0
85°	49	65	76	48	28	14	1	0	0
87.5°	47	64	75	47	26	13	0	0	0
90°	48	64	76	48	27	14	1	0	0
92.5°	48	64	75	47	26	13	0	0	0
95°	50	65	75	48	27	14	1	0	0
97.5°	50	65	75	48	27	14	1	0	0
100°	51	64	73	48	26	14	0	0	0
102.5°	53	64	73	47	26	14	0	0	0
105°	53	64	72	47	26	14	0	0	0
107.5°	56	65	72	48	26	16	1	0	0
110°	56	65	72	47	27	15	1	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	57	64	70	47	26	15	0	0	0
115°	57	64	69	47	26	16	1	0	0
117.5°	57	64	68	46	26	15	1	0	0
120°	57	63	67	45	26	15	1	0	0
122.5°	57	62	65	45	25	14	2	0	0
125°	57	61	63	43	25	14	1	0	0
127.5°	55	59	61	42	23	13	1	0	0
130°	54	58	59	42	22	12	1	0	0
132.5°	54	57	58	40	22	12	1	0	0
135°	53	56	57	40	23	12	2	0	0
137.5°	52	55	56	39	22	11	2	0	0
140°	50	53	54	38	21	10	2	0	0
142.5°	50	51	53	38	21	10	2	0	0
145°	48	50	51	37	20	10	2	0	0
147.5°	47	48	49	36	19	9	2	1	1
150°	46	47	47	35	19	10	2	1	1
152.5°	44	44	43	32	18	8	2	1	1
155°	42	41	41	30	17	8	2	1	1
157.5°	40	38	37	28	16	7	2	1	1
160°	36	35	33	26	15	8	2	1	1
162.5°	33	32	31	24	15	8	3	2	2
165°	30	28	27	21	14	7	3	2	2
167.5°	25	23	22	17	12	6	2	2	1
170°	22	20	19	15	11	6	2	2	1
172.5°	17	15	14	12	8	4	1	0	0
175°	14	12	11	9	6	3	1	0	0
177.5°	10	9	8	5	3	1	0	1	0
180°	4	4	4	4	4	4	4	1	0

(END OF REPORT)