

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: P307078

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-6500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P307078
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-6500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 6500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2221.0 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

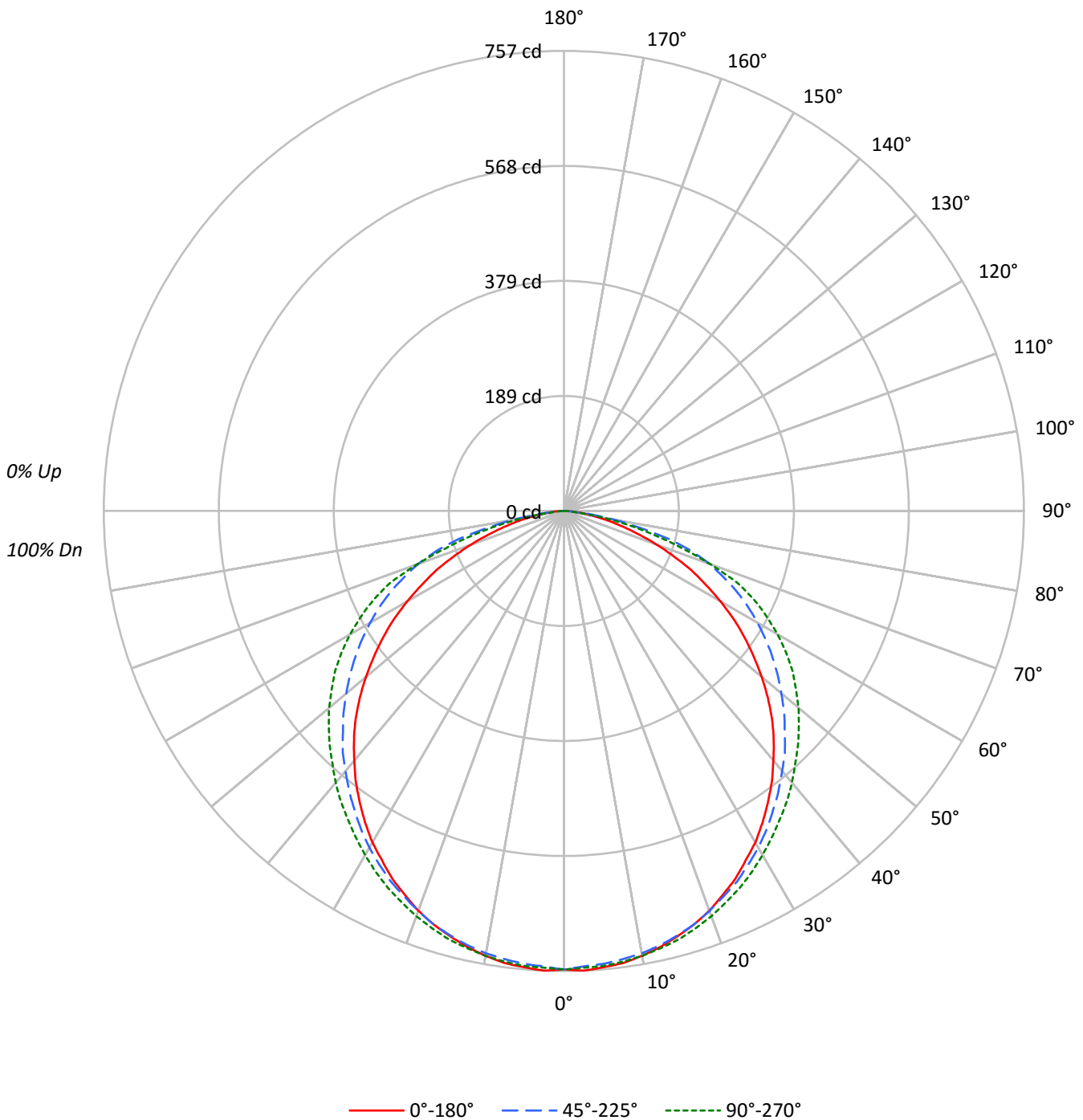
Input Watts (W): 24.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2030	2030	2030
5°	2036	2021	2030
10°	2031	2019	2031
15°	2018	2014	2033
20°	2004	2006	2032
25°	1983	1999	2032
30°	1957	1988	2031
35°	1923	1973	2035
40°	1884	1963	2051
45°	1845	1956	2073
50°	1780	1956	2111
55°	1704	1966	2156
60°	1601	1981	2184
65°	1477	2001	2197
70°	1286	2006	2022
75°	1061	1866	1633
80°	834	1342	1093
85°	648	519	259



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	3.2
10°-20°	204.9	9.2
20°-30°	311.2	14.0
30°-40°	377.0	17.0
40°-50°	397.3	17.9
50°-60°	370.9	16.7
60°-70°	296.4	13.3
70°-80°	163.1	7.3
80°-90°	28.8	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	587.5	26.5
0°-40°	964.5	43.4
0°-60°	1732.7	78.0
0°-90°	2221.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2221.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	754	752	748	753	752	72
15°	724	724	723	730	730	204
25°	668	669	673	683	684	307
35°	585	591	601	616	620	366
45°	485	494	514	537	545	373
55°	363	381	419	448	460	324
65°	232	261	314	340	345	228
75°	102	146	180	161	157	110
85°	21	26	17	10	8	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	754.3	754.3	754.3	754.3	754.3
2.5°	757.1	755.0	750.1	754.3	752.2
5°	753.6	751.5	748.0	752.9	751.5
7.5°	750.1	747.3	743.8	749.4	748.0
10°	743.1	741.0	738.9	743.8	743.1
12.5°	734.7	734.0	731.9	737.5	736.8
15°	724.2	724.2	722.8	729.8	729.8
17.5°	713.1	712.4	713.1	720.7	720.0
20°	699.8	699.8	700.5	709.6	709.6
22.5°	683.7	684.4	686.5	697.7	697.0
25°	667.7	669.1	673.2	683.0	684.4
27.5°	648.1	651.6	656.5	668.4	669.8
30°	629.9	632.0	639.7	650.9	653.7
32.5°	608.3	612.5	620.9	633.4	636.9
35°	585.3	590.8	600.6	616.0	619.5
37.5°	562.2	567.1	580.4	596.4	602.7
40°	536.4	544.7	558.7	576.9	583.9
42.5°	511.2	519.6	538.5	557.3	563.6
45°	484.7	493.8	514.0	537.1	544.7
47.5°	455.4	465.8	491.7	516.1	524.5
50°	425.3	438.6	467.2	494.5	504.2
52.5°	393.9	410.7	443.5	472.1	481.2
55°	363.2	381.3	419.0	448.4	459.5
57.5°	331.7	351.3	393.9	427.4	433.7
60°	297.5	321.3	368.1	397.4	405.8
62.5°	264.0	291.2	341.5	369.4	376.4
65°	231.9	261.2	314.3	340.1	345.0
67.5°	196.9	231.9	284.2	308.0	309.4
70°	163.4	203.9	254.9	266.1	257.0
72.5°	130.6	173.9	220.7	211.6	203.9
75°	102.0	146.0	179.5	161.3	157.1
77.5°	75.4	119.4	128.5	118.7	111.0
80°	53.8	94.3	86.6	74.0	70.5
82.5°	37.0	59.4	47.5	37.0	32.1
85°	21.0	26.5	16.8	10.5	8.4
87.5°	9.1	6.3	3.5	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)