

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: P307431

Luminaire Tested: **14FCZ2-39-UNV-L82765-RDP-CA08-W2A-U-3000K**

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: P307431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-RDP-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 3000K 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: 2252.0 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

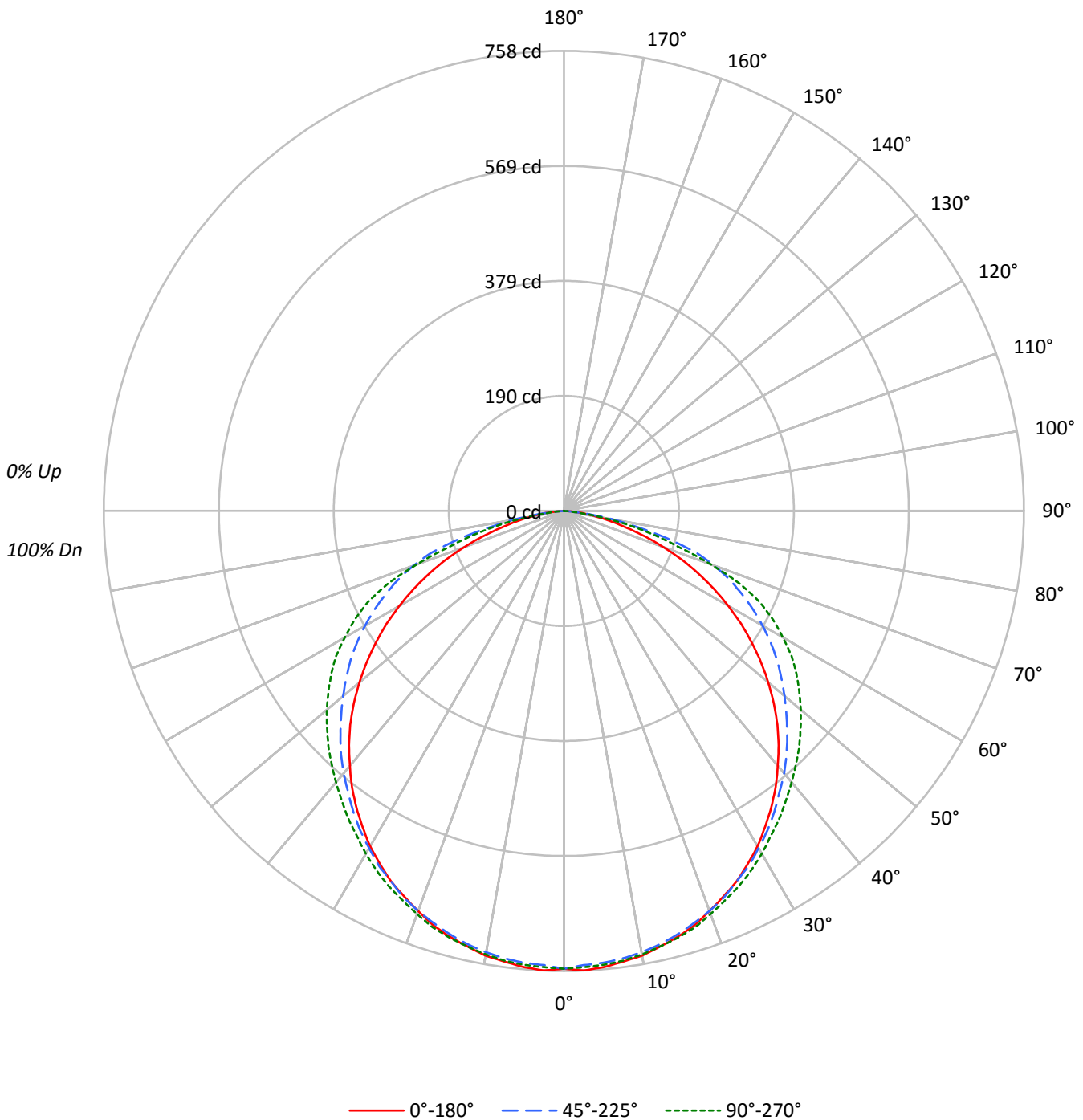
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2030	2030	2030
5°	2038	2018	2028
10°	2032	2018	2027
15°	2023	2013	2028
20°	2009	2009	2024
25°	1999	1999	2026
30°	1983	1994	2027
35°	1958	1987	2033
40°	1927	1983	2050
45°	1894	1980	2087
50°	1840	1987	2135
55°	1773	2013	2194
60°	1685	2034	2243
65°	1556	2060	2273
70°	1383	2075	2034
75°	1115	1864	1627
80°	872	1308	1063
85°	596	380	272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	3.2
10°-20°	204.8	9.1
20°-30°	311.9	13.8
30°-40°	379.9	16.9
40°-50°	403.0	17.9
50°-60°	380.4	16.9
60°-70°	307.1	13.6
70°-80°	166.6	7.4
80°-90°	27.0	1.2
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°	588.1	26.1
0°-40°	968.0	43.0
0°-60°	1751.3	77.8
0°-90°	2252.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2252.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	754	752	747	752	751	72
15°	726	724	723	728	728	205
25°	673	672	673	680	682	310
35°	596	600	605	617	619	373
45°	498	505	520	540	548	383
55°	378	394	429	457	468	338
65°	244	274	324	350	357	242
75°	107	156	179	162	156	117
85°	19	21	12	10	9	25
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°	757.8	754.3	749.0	754.3	752.5
5°	754.3	752.5	747.2	752.5	750.7
7.5°	749.0	749.0	743.7	747.2	747.2
10°	743.7	741.9	738.4	743.7	741.9
12.5°	734.9	733.2	731.4	736.7	734.9
15°	726.1	724.4	722.6	727.9	727.9
17.5°	715.6	713.8	712.1	719.1	719.1
20°	701.5	701.5	701.5	708.5	706.8
22.5°	687.4	687.4	689.2	696.2	694.5
25°	673.4	671.6	673.4	680.4	682.2
27.5°	655.8	657.6	659.3	666.3	668.1
30°	638.2	640.0	641.7	650.5	652.3
32.5°	617.1	620.6	624.1	634.7	634.7
35°	596.0	599.5	604.8	617.1	618.9
37.5°	573.2	576.7	583.7	597.8	601.3
40°	548.5	553.8	564.4	578.4	583.7
42.5°	523.9	531.0	543.3	559.1	566.1
45°	497.6	504.6	520.4	539.8	548.5
47.5°	469.4	478.2	497.6	522.2	529.2
50°	439.5	451.8	474.7	501.1	509.9
52.5°	409.7	423.7	451.8	480.0	488.8
55°	378.0	393.8	429.0	457.1	467.7
57.5°	346.4	363.9	404.4	434.3	444.8
60°	313.0	334.1	378.0	407.9	416.7
62.5°	279.5	304.2	351.6	381.5	388.6
65°	244.4	274.3	323.5	349.9	356.9
67.5°	211.0	246.1	295.4	314.7	314.7
70°	175.8	214.5	263.7	269.0	258.5
72.5°	140.7	184.6	228.6	209.2	200.4
75°	107.2	156.5	179.3	161.8	156.5
77.5°	80.9	126.6	126.6	116.0	112.5
80°	56.3	96.7	84.4	73.8	68.6
82.5°	36.9	54.5	44.0	35.2	29.9
85°	19.3	21.1	12.3	10.5	8.8
87.5°	7.0	3.5	1.8	3.5	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)