

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: P307432

Luminaire Tested: **14FCZ2-39-UNV-L82765-RDP-CA08-W2A-U-3500K**

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: P307432
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-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 3500K 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: 2330.0 lumens
Efficiency: N/A
Efficacy: 69.6 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

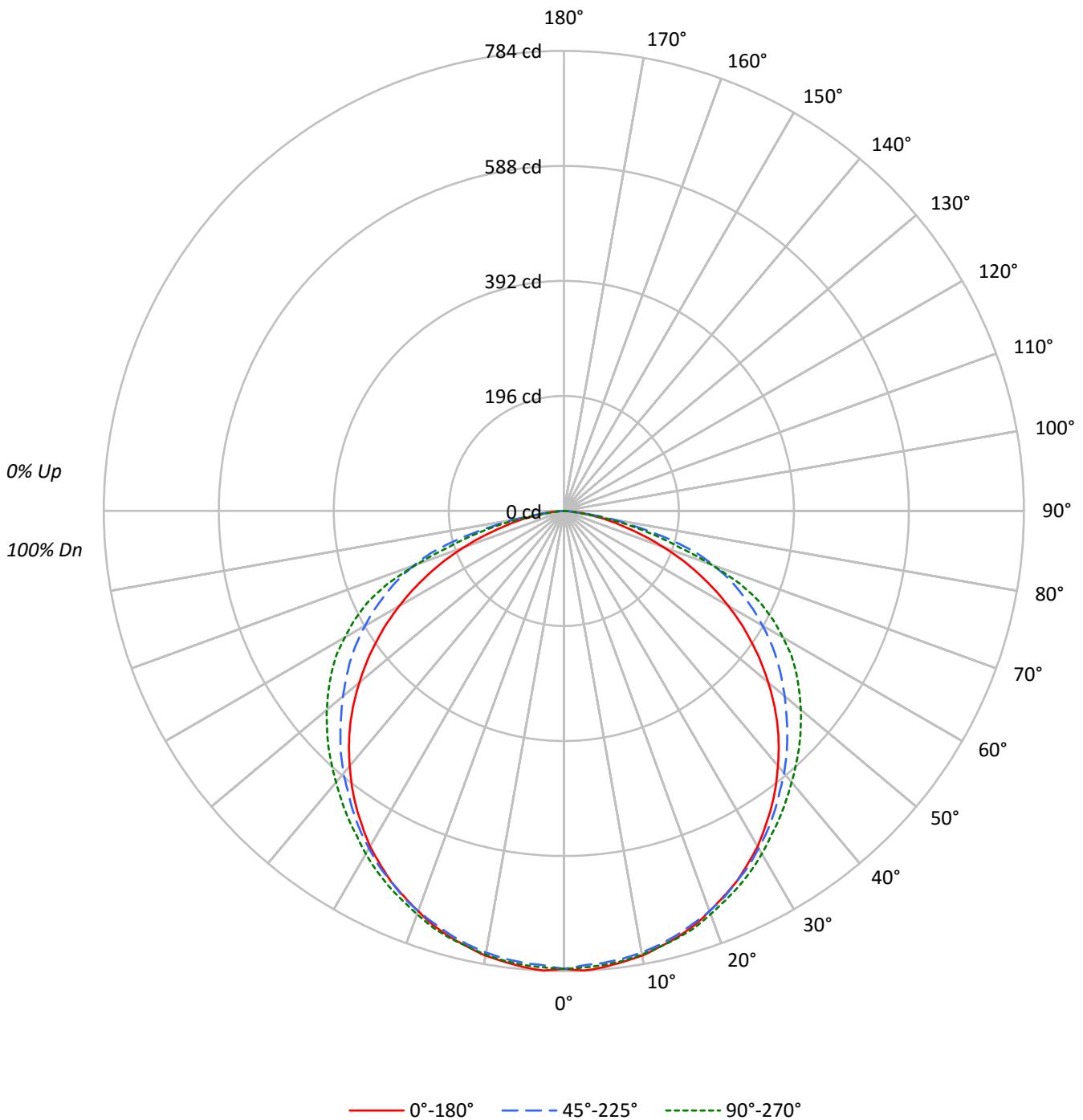
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2100	2100	2100
5°	2108	2088	2098
10°	2103	2088	2097
15°	2093	2083	2098
20°	2078	2078	2094
25°	2069	2069	2096
30°	2052	2063	2097
35°	2026	2056	2103
40°	1994	2051	2121
45°	1959	2049	2160
50°	1904	2056	2208
55°	1835	2083	2270
60°	1743	2105	2320
65°	1610	2131	2351
70°	1431	2147	2104
75°	1154	1929	1683
80°	902	1353	1099
85°	618	392	281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	3.2
10°-20°	211.9	9.1
20°-30°	322.7	13.8
30°-40°	393.0	16.9
40°-50°	417.0	17.9
50°-60°	393.5	16.9
60°-70°	317.7	13.6
70°-80°	172.4	7.4
80°-90°	27.9	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°	608.5	26.1
0°-40°	1001.5	43.0
0°-60°	1812.0	77.8
0°-90°	2330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2330.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	780	780	780	780	780	
5°	780	779	773	779	777	74
15°	751	750	748	753	753	212
25°	697	695	697	704	706	321
35°	617	620	626	638	640	386
45°	515	522	538	558	568	396
55°	391	408	444	473	484	349
65°	253	284	335	362	369	251
75°	111	162	186	167	162	121
85°	20	22	13	11	9	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	780.4	780.4	780.4	780.4	780.4
2.5°	784.0	780.4	774.9	780.4	778.6
5°	780.4	778.6	773.1	778.6	776.7
7.5°	774.9	774.9	769.5	773.1	773.1
10°	769.5	767.6	764.0	769.5	767.6
12.5°	760.4	758.5	756.7	762.2	760.4
15°	751.3	749.5	747.6	753.1	753.1
17.5°	740.4	738.5	736.7	744.0	744.0
20°	725.8	725.8	725.8	733.1	731.3
22.5°	711.3	711.3	713.1	720.3	718.5
25°	696.7	694.9	696.7	704.0	705.8
27.5°	678.5	680.3	682.1	689.4	691.2
30°	660.3	662.1	664.0	673.1	674.9
32.5°	638.5	642.1	645.8	656.7	656.7
35°	616.7	620.3	625.8	638.5	640.3
37.5°	593.0	596.7	603.9	618.5	622.1
40°	567.5	573.0	583.9	598.5	603.9
42.5°	542.1	549.4	562.1	578.5	585.7
45°	514.8	522.1	538.4	558.5	567.5
47.5°	485.7	494.8	514.8	540.3	547.5
50°	454.8	467.5	491.1	518.4	527.5
52.5°	423.8	438.4	467.5	496.6	505.7
55°	391.1	407.5	443.9	473.0	483.9
57.5°	358.4	376.5	418.4	449.3	460.2
60°	323.8	345.6	391.1	422.0	431.1
62.5°	289.2	314.7	363.8	394.7	402.0
65°	252.8	283.8	334.7	362.0	369.3
67.5°	218.3	254.7	305.6	325.6	325.6
70°	181.9	221.9	272.9	278.3	267.4
72.5°	145.5	191.0	236.5	216.5	207.4
75°	111.0	161.9	185.5	167.4	161.9
77.5°	83.7	131.0	131.0	120.1	116.4
80°	58.2	100.0	87.3	76.4	70.9
82.5°	38.2	56.4	45.5	36.4	30.9
85°	20.0	21.8	12.7	10.9	9.1
87.5°	7.3	3.6	1.8	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)