

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: P308516

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CA08-W2A-U-5500K**

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: P308516
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-39HE-UNV-L82765-RDP-CA08-W2A-U-5500K
Description: 2'X2' 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: 2469.0 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

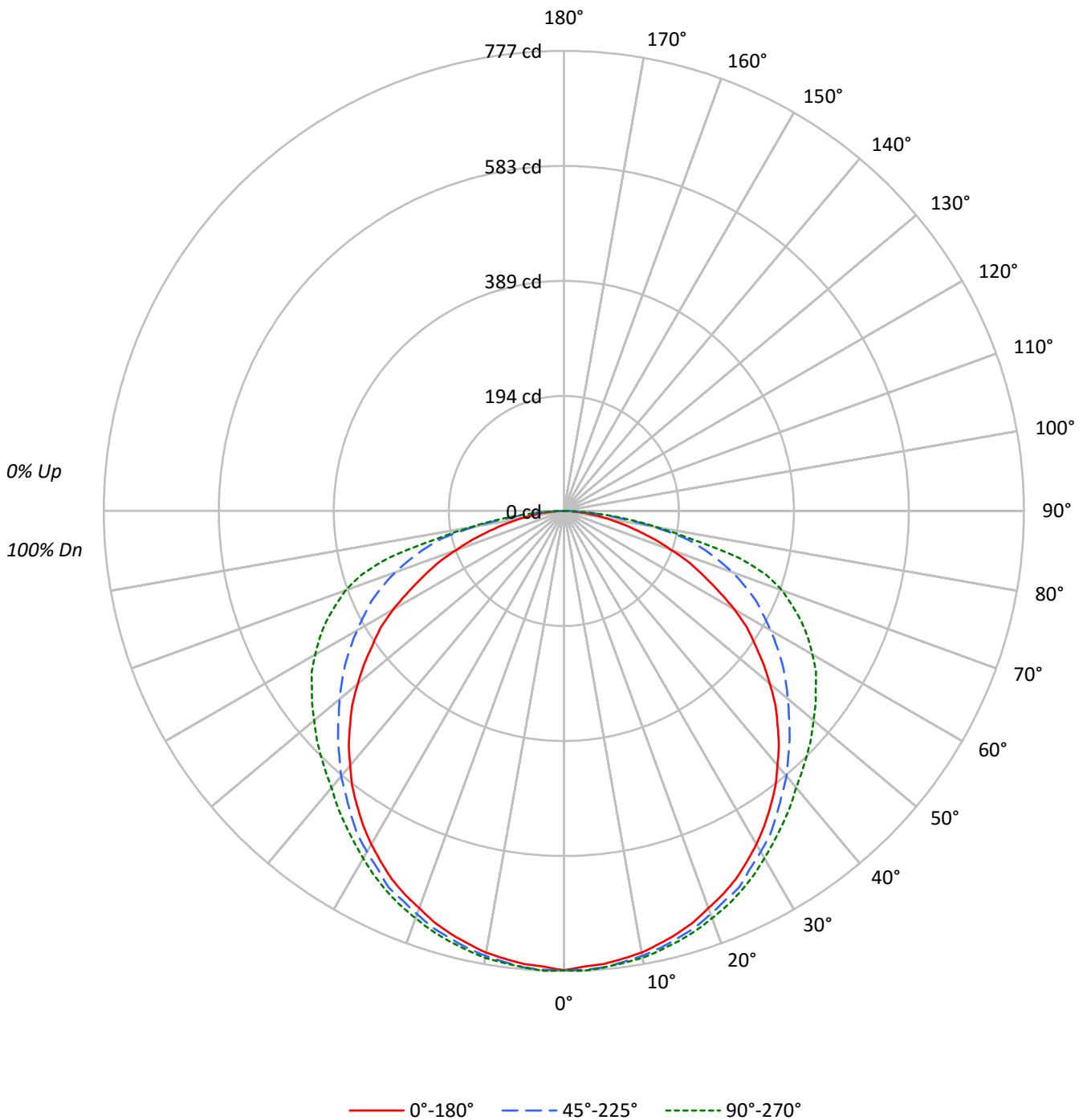
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2087	2087	2087
5°	2075	2090	2090
10°	2070	2084	2094
15°	2059	2080	2095
20°	2044	2075	2096
25°	2039	2082	2103
30°	2020	2066	2105
35°	1999	2058	2118
40°	1971	2054	2144
45°	1942	2053	2212
50°	1901	2068	2304
55°	1849	2113	2437
60°	1789	2170	2610
65°	1665	2278	2822
70°	1529	2386	3087
75°	1341	2512	3192
80°	1155	2393	2504
85°	1010	1738	1908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	3.0
10°-20°	210.6	8.5
20°-30°	321.4	13.0
30°-40°	392.4	15.9
40°-50°	419.6	17.0
50°-60°	405.0	16.4
60°-70°	348.6	14.1
70°-80°	235.9	9.6
80°-90°	62.2	2.5
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°	605.4	24.5
0°-40°	997.8	40.4
0°-60°	1822.3	73.8
0°-90°	2469.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2469.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	768	770	774	774	774	73
15°	739	741	746	750	752	209
25°	687	690	701	705	708	316
35°	608	614	627	639	645	381
45°	510	520	539	567	581	394
55°	394	407	450	496	520	353
65°	262	287	358	414	443	260
75°	129	171	242	291	307	138
85°	33	45	56	58	62	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	775.6	775.6	775.6	775.6	775.6
2.5°	770.1	771.9	775.6	775.6	777.4
5°	768.3	770.1	773.7	773.7	773.7
7.5°	762.8	764.7	768.3	770.1	770.1
10°	757.4	759.2	762.8	764.7	766.5
12.5°	748.3	750.1	755.6	759.2	759.2
15°	739.2	741.0	746.5	750.1	751.9
17.5°	728.3	732.0	737.4	741.0	742.9
20°	713.8	717.4	724.7	730.1	732.0
22.5°	701.1	704.7	712.0	717.4	721.1
25°	686.6	690.2	701.1	704.7	708.4
27.5°	668.4	672.0	681.1	688.4	693.8
30°	650.2	653.9	664.8	673.8	677.5
32.5°	630.3	635.7	648.4	655.7	661.1
35°	608.5	613.9	626.6	639.3	644.8
37.5°	586.7	592.1	604.8	621.2	628.4
40°	561.2	568.5	584.8	606.6	610.3
42.5°	537.6	546.7	561.2	586.7	595.7
45°	510.4	519.5	539.4	566.7	581.2
47.5°	484.9	494.0	515.8	548.5	566.7
50°	454.1	466.8	494.0	532.2	550.3
52.5°	425.0	435.9	472.2	514.0	535.8
55°	394.1	406.8	450.4	495.8	519.5
57.5°	366.9	377.8	426.8	477.7	504.9
60°	332.4	346.9	403.2	457.7	484.9
62.5°	296.1	317.9	379.6	435.9	465.0
65°	261.5	287.0	357.8	414.1	443.2
67.5°	230.7	257.9	330.6	390.5	417.7
70°	194.3	228.9	303.3	361.4	392.3
72.5°	161.6	199.8	272.4	330.6	357.8
75°	129.0	170.7	241.6	290.6	307.0
77.5°	99.9	139.9	207.1	221.6	223.4
80°	74.5	110.8	154.4	156.2	161.6
82.5°	50.9	78.1	99.9	109.0	110.8
85°	32.7	45.4	56.3	58.1	61.8
87.5°	14.5	16.3	20.0	18.2	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)