

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: P308517

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CA08-W2A-U-5700K**

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: P308517
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-5700K
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: 2475.0 lumens
Efficiency: N/A
Efficacy: 74.3 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

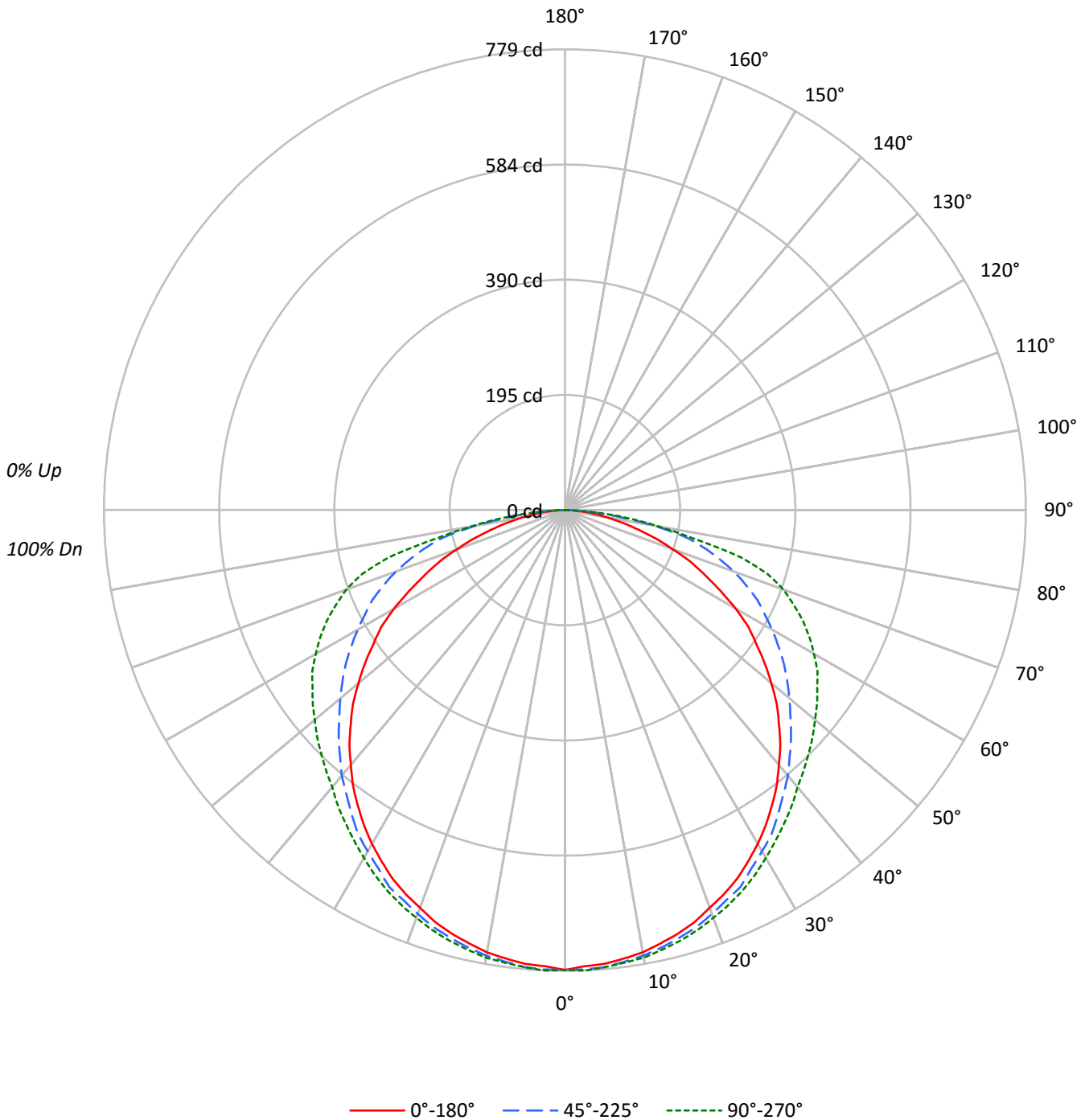
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2092	2092	2092
5°	2081	2095	2095
10°	2075	2090	2099
15°	2064	2085	2100
20°	2049	2080	2101
25°	2043	2087	2108
30°	2025	2071	2110
35°	2004	2063	2123
40°	1976	2060	2149
45°	1947	2058	2217
50°	1906	2073	2310
55°	1854	2118	2443
60°	1793	2175	2616
65°	1670	2284	2829
70°	1533	2393	3094
75°	1344	2518	3199
80°	1156	2399	2510
85°	1013	1741	1911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	3.0
10°-20°	211.1	8.5
20°-30°	322.1	13.0
30°-40°	393.3	15.9
40°-50°	420.6	17.0
50°-60°	406.0	16.4
60°-70°	349.5	14.1
70°-80°	236.4	9.6
80°-90°	62.4	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°	606.8	24.5
0°-40°	1000.2	40.4
0°-60°	1826.7	73.8
0°-90°	2475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	770	772	776	776	776	73
15°	741	743	748	752	754	209
25°	688	692	703	706	710	317
35°	610	615	628	641	646	382
45°	512	521	541	568	583	395
55°	395	408	452	497	521	354
65°	262	288	359	415	444	261
75°	129	171	242	291	308	139
85°	33	46	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°	777.4	777.4	777.4	777.4	777.4
2.5°	772.0	773.8	777.4	777.4	779.3
5°	770.2	772.0	775.6	775.6	775.6
7.5°	764.7	766.5	770.2	772.0	772.0
10°	759.2	761.1	764.7	766.5	768.3
12.5°	750.1	752.0	757.4	761.1	761.1
15°	741.0	742.8	748.3	752.0	753.8
17.5°	730.1	733.7	739.2	742.8	744.7
20°	715.5	719.2	726.5	731.9	733.7
22.5°	702.8	706.4	713.7	719.2	722.8
25°	688.2	691.9	702.8	706.4	710.1
27.5°	670.0	673.7	682.8	690.0	695.5
30°	651.8	655.5	666.4	675.5	679.1
32.5°	631.8	637.2	650.0	657.3	662.7
35°	609.9	615.4	628.1	640.9	646.3
37.5°	588.1	593.5	606.3	622.7	630.0
40°	562.6	569.9	586.3	608.1	611.8
42.5°	538.9	548.0	562.6	588.1	597.2
45°	511.6	520.7	540.7	568.1	582.6
47.5°	486.1	495.2	517.1	549.9	568.1
50°	455.2	467.9	495.2	533.5	551.7
52.5°	426.0	437.0	473.4	515.3	537.1
55°	395.1	407.8	451.5	497.1	520.7
57.5°	367.8	378.7	427.9	478.8	506.2
60°	333.2	347.8	404.2	458.8	486.1
62.5°	296.8	318.6	380.5	437.0	466.1
65°	262.2	287.7	358.7	415.1	444.3
67.5°	231.2	258.5	331.4	391.5	418.8
70°	194.8	229.4	304.1	362.3	393.3
72.5°	162.0	200.3	273.1	331.4	358.7
75°	129.3	171.1	242.2	291.3	307.7
77.5°	100.1	140.2	207.6	222.1	223.9
80°	74.6	111.1	154.8	156.6	162.0
82.5°	51.0	78.3	100.1	109.2	111.1
85°	32.8	45.5	56.4	58.3	61.9
87.5°	14.6	16.4	20.0	18.2	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)