

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: P308518

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-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: P308518
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-6500K
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: 2481.0 lumens
Efficiency: N/A
Efficacy: 73.4 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

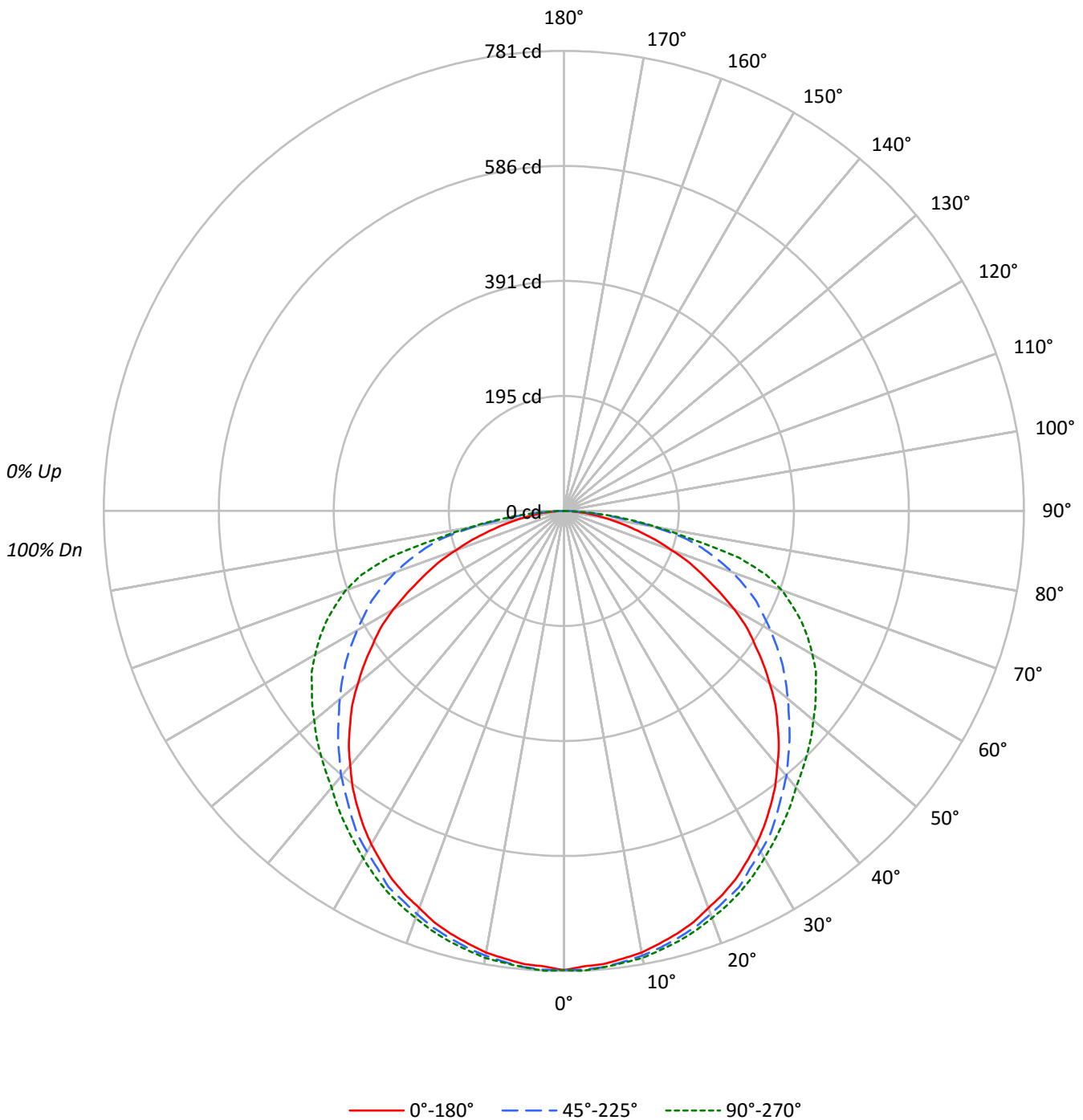
Input Watts (W): 33.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2097	2097	2097
5°	2085	2100	2100
10°	2080	2094	2105
15°	2069	2090	2105
20°	2054	2085	2106
25°	2048	2092	2113
30°	2030	2076	2115
35°	2008	2069	2128
40°	1981	2064	2154
45°	1952	2063	2222
50°	1910	2078	2315
55°	1858	2123	2449
60°	1798	2181	2623
65°	1673	2289	2835
70°	1537	2398	3102
75°	1347	2523	3206
80°	1159	2404	2517
85°	1016	1748	1917



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.7	3.0
10°-20°	211.7	8.5
20°-30°	322.9	13.0
30°-40°	394.3	15.9
40°-50°	421.6	17.0
50°-60°	406.9	16.4
60°-70°	350.3	14.1
70°-80°	237.0	9.6
80°-90°	62.5	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°	608.3	24.5
0°-40°	1002.6	40.4
0°-60°	1831.1	73.8
0°-90°	2481.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2481.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	779	779	779	779	779	
5°	772	774	778	778	778	73
15°	743	745	750	754	756	210
25°	690	694	704	708	712	318
35°	611	617	630	642	648	383
45°	513	522	542	569	584	396
55°	396	409	453	498	522	355
65°	263	288	360	416	445	261
75°	130	172	243	292	308	139
85°	33	46	57	58	62	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	779.3	779.3	779.3	779.3	779.3
2.5°	773.8	775.7	779.3	779.3	781.2
5°	772.0	773.8	777.5	777.5	777.5
7.5°	766.5	768.4	772.0	773.8	773.8
10°	761.1	762.9	766.5	768.4	770.2
12.5°	751.9	753.8	759.2	762.9	762.9
15°	742.8	744.6	750.1	753.8	755.6
17.5°	731.9	735.5	741.0	744.6	746.5
20°	717.3	720.9	728.2	733.7	735.5
22.5°	704.5	708.1	715.4	720.9	724.6
25°	689.9	693.5	704.5	708.1	711.8
27.5°	671.6	675.3	684.4	691.7	697.2
30°	653.4	657.0	668.0	677.1	680.8
32.5°	633.3	638.8	651.6	658.9	664.3
35°	611.4	616.9	629.7	642.4	647.9
37.5°	589.5	595.0	607.8	624.2	631.5
40°	564.0	571.3	587.7	609.6	613.2
42.5°	540.2	549.4	564.0	589.5	598.6
45°	512.9	522.0	542.1	569.4	584.0
47.5°	487.3	496.4	518.3	551.2	569.4
50°	456.3	469.1	496.4	534.8	553.0
52.5°	427.1	438.0	474.5	516.5	538.4
55°	396.1	408.8	452.6	498.3	522.0
57.5°	368.7	379.6	428.9	480.0	507.4
60°	334.0	348.6	405.2	459.9	487.3
62.5°	297.5	319.4	381.4	438.0	467.2
65°	262.8	288.4	359.5	416.1	445.3
67.5°	231.8	259.2	332.2	392.4	419.8
70°	195.3	230.0	304.8	363.2	394.2
72.5°	162.4	200.8	273.8	332.2	359.5
75°	129.6	171.6	242.7	292.0	308.4
77.5°	100.4	140.5	208.1	222.7	224.5
80°	74.8	111.3	155.1	157.0	162.4
82.5°	51.1	78.5	100.4	109.5	111.3
85°	32.9	45.6	56.6	58.4	62.1
87.5°	14.6	16.4	20.1	18.3	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)