

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: P308514

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CA08-W2A-U-4500K**

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: P308514
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-4500K
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: 2411.0 lumens
Efficiency: N/A
Efficacy: 73.1 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

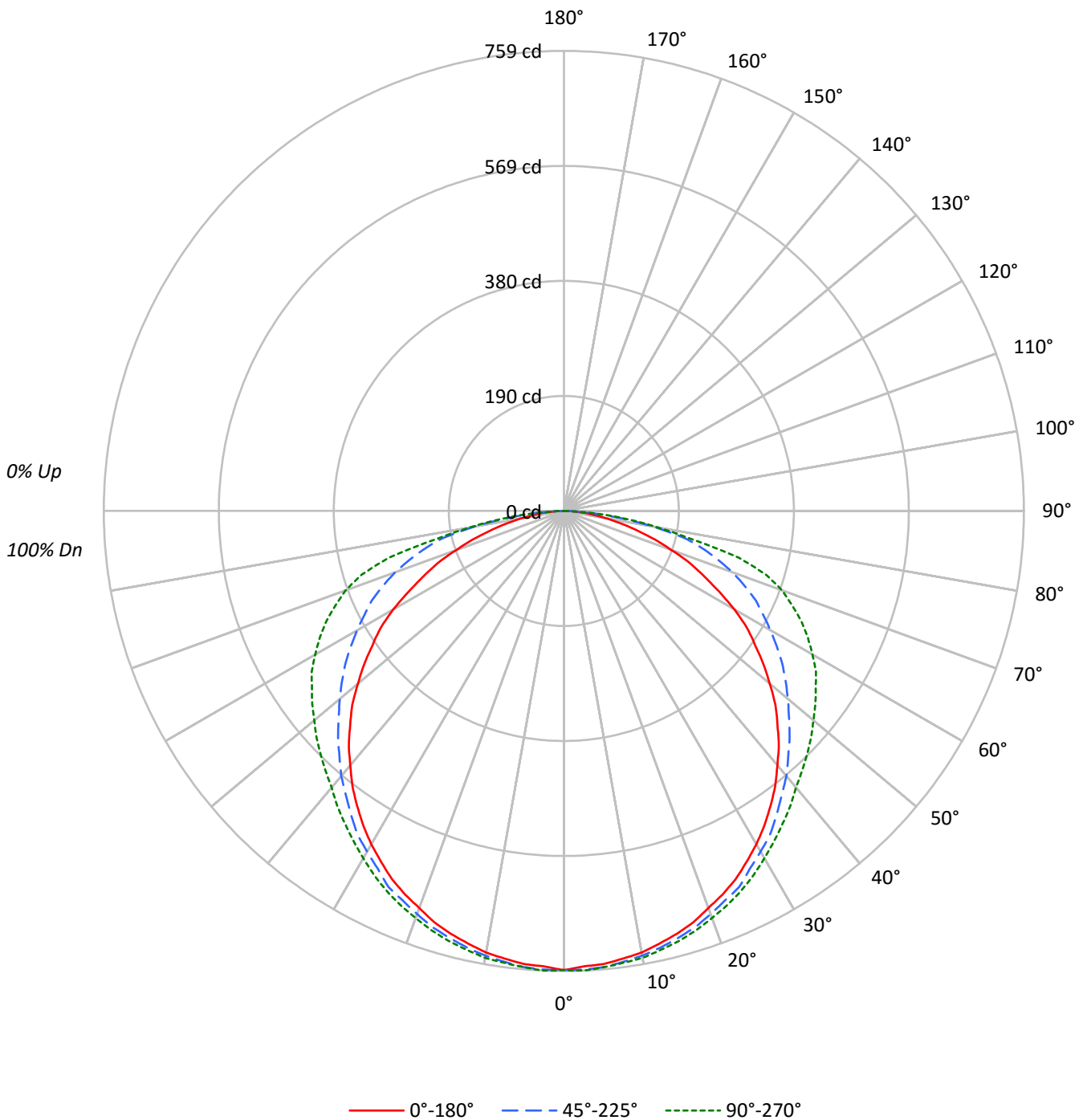
Input Watts (W): 33
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2038	2038	2038
5°	2026	2041	2041
10°	2021	2035	2045
15°	2011	2031	2046
20°	1996	2027	2047
25°	1991	2033	2054
30°	1973	2017	2056
35°	1952	2010	2068
40°	1925	2006	2093
45°	1897	2005	2160
50°	1856	2020	2250
55°	1806	2064	2380
60°	1747	2119	2549
65°	1626	2225	2756
70°	1493	2330	3014
75°	1309	2453	3116
80°	1127	2337	2447
85°	985	1698	1862



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.6	3.0
10°-20°	205.7	8.5
20°-30°	313.8	13.0
30°-40°	383.2	15.9
40°-50°	409.7	17.0
50°-60°	395.5	16.4
60°-70°	340.4	14.1
70°-80°	230.3	9.6
80°-90°	60.8	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°	591.1	24.5
0°-40°	974.3	40.4
0°-60°	1779.5	73.8
0°-90°	2411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2411.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	757	757	757	757	757	
5°	750	752	756	756	756	71
15°	722	724	729	732	734	204
25°	670	674	685	688	692	309
35°	594	600	612	624	630	372
45°	498	507	527	553	568	385
55°	385	397	440	484	507	345
65°	255	280	349	404	433	254
75°	126	167	236	284	300	135
85°	32	44	55	57	60	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	757.3	757.3	757.3	757.3	757.3
2.5°	752.0	753.8	757.3	757.3	759.1
5°	750.2	752.0	755.6	755.6	755.6
7.5°	744.9	746.7	750.2	752.0	752.0
10°	739.6	741.4	744.9	746.7	748.5
12.5°	730.7	732.5	737.8	741.4	741.4
15°	721.9	723.6	729.0	732.5	734.3
17.5°	711.2	714.8	720.1	723.6	725.4
20°	697.0	700.6	707.7	713.0	714.8
22.5°	684.6	688.2	695.3	700.6	704.1
25°	670.4	674.0	684.6	688.2	691.7
27.5°	652.7	656.2	665.1	672.2	677.5
30°	635.0	638.5	649.1	658.0	661.6
32.5°	615.4	620.8	633.2	640.3	645.6
35°	594.2	599.5	611.9	624.3	629.6
37.5°	572.9	578.2	590.6	606.6	613.7
40°	548.0	555.1	571.1	592.4	595.9
42.5°	525.0	533.9	548.0	572.9	581.7
45°	498.4	507.3	526.8	553.4	567.6
47.5°	473.6	482.4	503.7	535.6	553.4
50°	443.4	455.8	482.4	519.7	537.4
52.5°	415.0	425.7	461.1	501.9	523.2
55°	384.9	397.3	439.9	484.2	507.3
57.5°	358.3	368.9	416.8	466.5	493.1
60°	324.6	338.8	393.7	447.0	473.6
62.5°	289.1	310.4	370.7	425.7	454.0
65°	255.4	280.2	349.4	404.4	432.8
67.5°	225.3	251.9	322.8	381.3	407.9
70°	189.8	223.5	296.2	353.0	383.1
72.5°	157.9	195.1	266.0	322.8	349.4
75°	125.9	166.7	235.9	283.8	299.7
77.5°	97.5	136.6	202.2	216.4	218.2
80°	72.7	108.2	150.8	152.5	157.9
82.5°	49.7	76.3	97.5	106.4	108.2
85°	31.9	44.3	55.0	56.8	60.3
87.5°	14.2	16.0	19.5	17.7	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)