

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: P308512

Luminaire Tested: **22FCZ2-39HE-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: P308512
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-3500K
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: 2319.0 lumens
Efficiency: N/A
Efficacy: 71.1 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

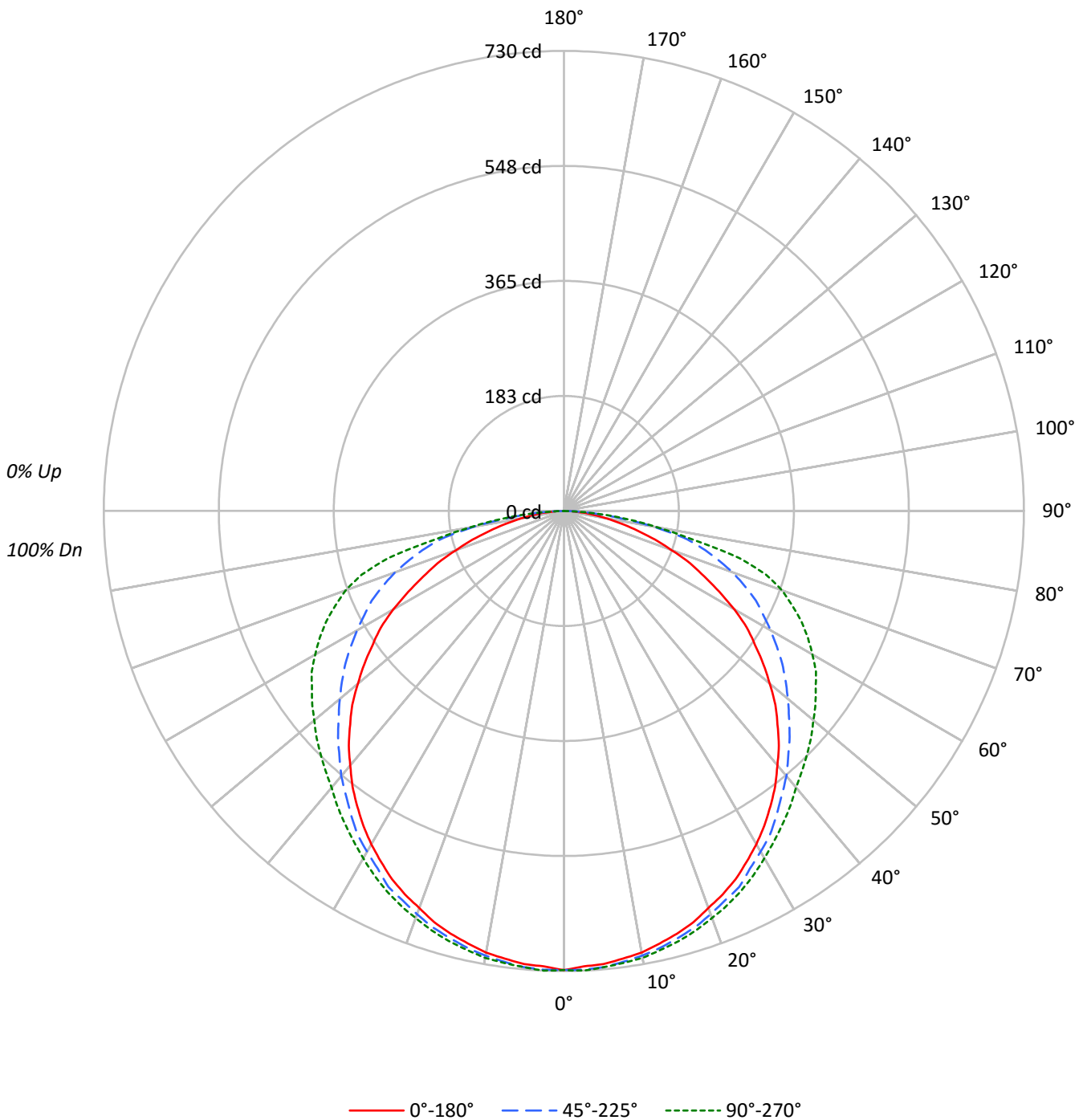
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1960	1960	1960
5°	1949	1963	1963
10°	1944	1958	1967
15°	1934	1953	1968
20°	1920	1949	1969
25°	1915	1955	1975
30°	1898	1940	1977
35°	1877	1934	1989
40°	1852	1930	2014
45°	1824	1928	2077
50°	1786	1942	2164
55°	1737	1985	2289
60°	1680	2038	2451
65°	1564	2140	2651
70°	1436	2242	2899
75°	1259	2359	2997
80°	1083	2247	2352
85°	948	1633	1791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.9	3.0
10°-20°	197.8	8.5
20°-30°	301.8	13.0
30°-40°	368.6	15.9
40°-50°	394.1	17.0
50°-60°	380.4	16.4
60°-70°	327.4	14.1
70°-80°	221.5	9.6
80°-90°	58.5	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°	568.6	24.5
0°-40°	937.1	40.4
0°-60°	1711.6	73.8
0°-90°	2319.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2319.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	722	723	727	727	727	69
15°	694	696	701	705	706	196
25°	645	648	658	662	665	297
35°	572	577	589	600	606	358
45°	479	488	507	532	546	370
55°	370	382	423	466	488	332
65°	246	270	336	389	416	244
75°	121	160	227	273	288	130
85°	31	43	53	55	58	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	728.4	728.4	728.4	728.4	728.4
2.5°	723.3	725.0	728.4	728.4	730.1
5°	721.6	723.3	726.7	726.7	726.7
7.5°	716.5	718.2	721.6	723.3	723.3
10°	711.4	713.1	716.5	718.2	719.9
12.5°	702.8	704.6	709.7	713.1	713.1
15°	694.3	696.0	701.1	704.6	706.3
17.5°	684.1	687.5	692.6	696.0	697.7
20°	670.4	673.8	680.7	685.8	687.5
22.5°	658.5	661.9	668.7	673.8	677.3
25°	644.8	648.3	658.5	661.9	665.3
27.5°	627.8	631.2	639.7	646.6	651.7
30°	610.7	614.1	624.4	632.9	636.3
32.5°	592.0	597.1	609.0	615.8	621.0
35°	571.5	576.6	588.6	600.5	605.6
37.5°	551.0	556.1	568.1	583.4	590.3
40°	527.1	534.0	549.3	569.8	573.2
42.5°	505.0	513.5	527.1	551.0	559.5
45°	479.4	487.9	506.7	532.3	545.9
47.5°	455.5	464.0	484.5	515.2	532.3
50°	426.5	438.4	464.0	499.8	516.9
52.5°	399.2	409.4	443.5	482.8	503.3
55°	370.2	382.1	423.1	465.7	487.9
57.5°	344.6	354.8	400.9	448.7	474.3
60°	312.2	325.8	378.7	429.9	455.5
62.5°	278.1	298.5	356.5	409.4	436.7
65°	245.7	269.5	336.1	389.0	416.3
67.5°	216.7	242.2	310.5	366.8	392.4
70°	182.5	214.9	284.9	339.5	368.5
72.5°	151.8	187.7	255.9	310.5	336.1
75°	121.1	160.4	226.9	273.0	288.3
77.5°	93.8	131.4	194.5	208.1	209.8
80°	69.9	104.1	145.0	146.7	151.8
82.5°	47.8	73.4	93.8	102.4	104.1
85°	30.7	42.6	52.9	54.6	58.0
87.5°	13.6	15.4	18.8	17.1	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)