

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: P307578

Luminaire Tested: **14FCZ2-25-UNV-L82765-CA125-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: P307578
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L82765-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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

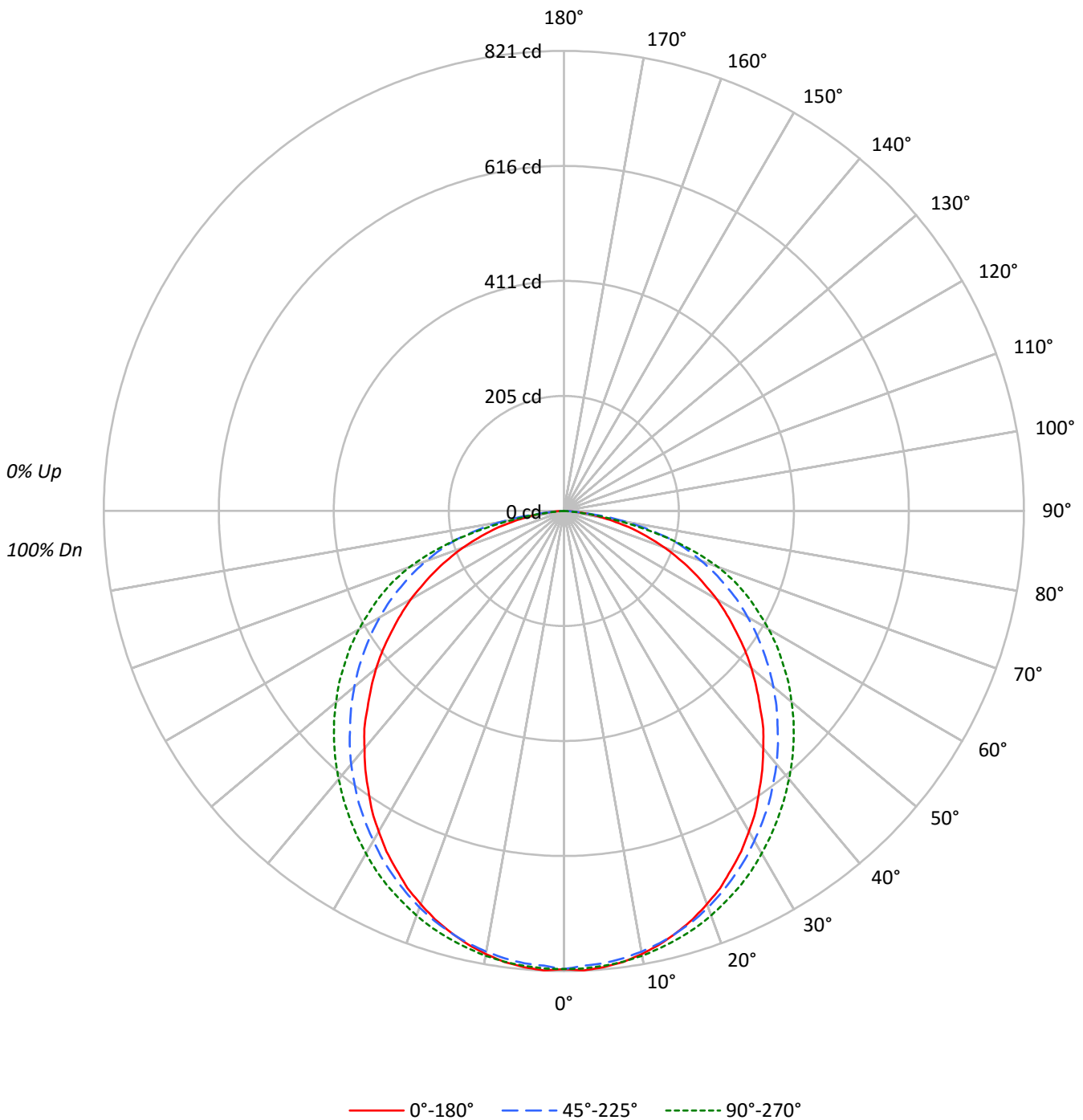
Lumens per Lamp: N/A
Luminaire Lumens: 2373.0 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2200	2200	2200
5°	2207	2188	2201
10°	2193	2182	2202
15°	2170	2171	2201
20°	2138	2156	2200
25°	2097	2135	2198
30°	2052	2113	2193
35°	1997	2095	2192
40°	1944	2074	2195
45°	1885	2052	2207
50°	1830	2043	2222
55°	1760	2036	2242
60°	1697	2039	2272
65°	1610	2045	2308
70°	1511	2061	2306
75°	1370	2079	2085
80°	1124	1796	1485
85°	834	849	343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	3.3
10°-20°	221.0	9.3
20°-30°	332.9	14.0
30°-40°	399.5	16.8
40°-50°	416.4	17.5
50°-60°	385.4	16.2
60°-70°	311.4	13.1
70°-80°	189.9	8.0
80°-90°	39.2	1.7
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°	631.2	26.6
0°-40°	1030.7	43.4
0°-60°	1832.5	77.2
0°-90°	2373.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2373.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	817	815	810	816	815	78
15°	779	779	779	790	790	220
25°	706	711	719	737	740	326
35°	608	618	638	661	667	381
45°	495	510	539	569	580	383
55°	375	395	434	468	478	336
65°	253	278	321	354	362	250
75°	132	161	200	203	200	138
85°	27	40	28	15	11	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	817.5	817.5	817.5	817.5	817.5
2.5°	820.7	818.0	812.2	818.0	817.0
5°	817.0	814.9	810.1	815.9	814.9
7.5°	811.7	809.6	805.3	812.2	811.2
10°	802.7	801.6	798.5	806.4	805.9
12.5°	792.1	791.6	790.0	799.0	798.5
15°	778.9	779.4	779.4	790.0	790.0
17.5°	764.1	765.1	767.2	778.9	780.5
20°	746.6	748.7	753.0	766.2	768.3
22.5°	728.6	730.2	736.5	752.4	754.5
25°	706.4	710.6	719.1	737.1	740.3
27.5°	685.2	688.9	700.6	719.1	724.4
30°	660.4	666.2	679.9	700.0	705.9
32.5°	636.5	642.9	658.8	682.0	687.3
35°	608.0	617.5	637.6	660.9	667.2
37.5°	582.0	591.0	613.8	639.2	646.6
40°	553.5	564.6	590.5	617.5	624.9
42.5°	527.0	537.6	565.6	593.2	603.2
45°	495.3	510.1	539.2	569.3	579.9
47.5°	466.2	481.0	514.3	546.6	556.1
50°	437.1	452.9	487.9	521.2	530.7
52.5°	406.9	423.8	461.4	494.7	505.8
55°	375.2	394.7	433.9	467.8	477.8
57.5°	345.0	365.1	406.9	441.3	451.3
60°	315.4	336.0	378.9	411.7	422.2
62.5°	282.6	306.9	351.3	383.6	391.6
65°	252.9	277.8	321.2	353.5	362.5
67.5°	221.7	248.7	292.1	321.7	330.2
70°	192.1	220.1	261.9	289.4	293.1
72.5°	160.3	188.9	231.2	248.7	248.7
75°	131.8	160.9	200.0	203.2	200.5
77.5°	100.5	132.8	158.2	151.9	145.5
80°	72.5	104.2	115.9	104.2	95.8
82.5°	48.7	75.7	69.8	55.6	49.2
85°	27.0	40.2	27.5	15.3	11.1
87.5°	10.1	9.0	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)