

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: P312177

Luminaire Tested: **14FCZ2-25-UNV-L83050-CP125-W2A-U-4000K**

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: P312177  
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-L83050-CP125-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 4000K 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**

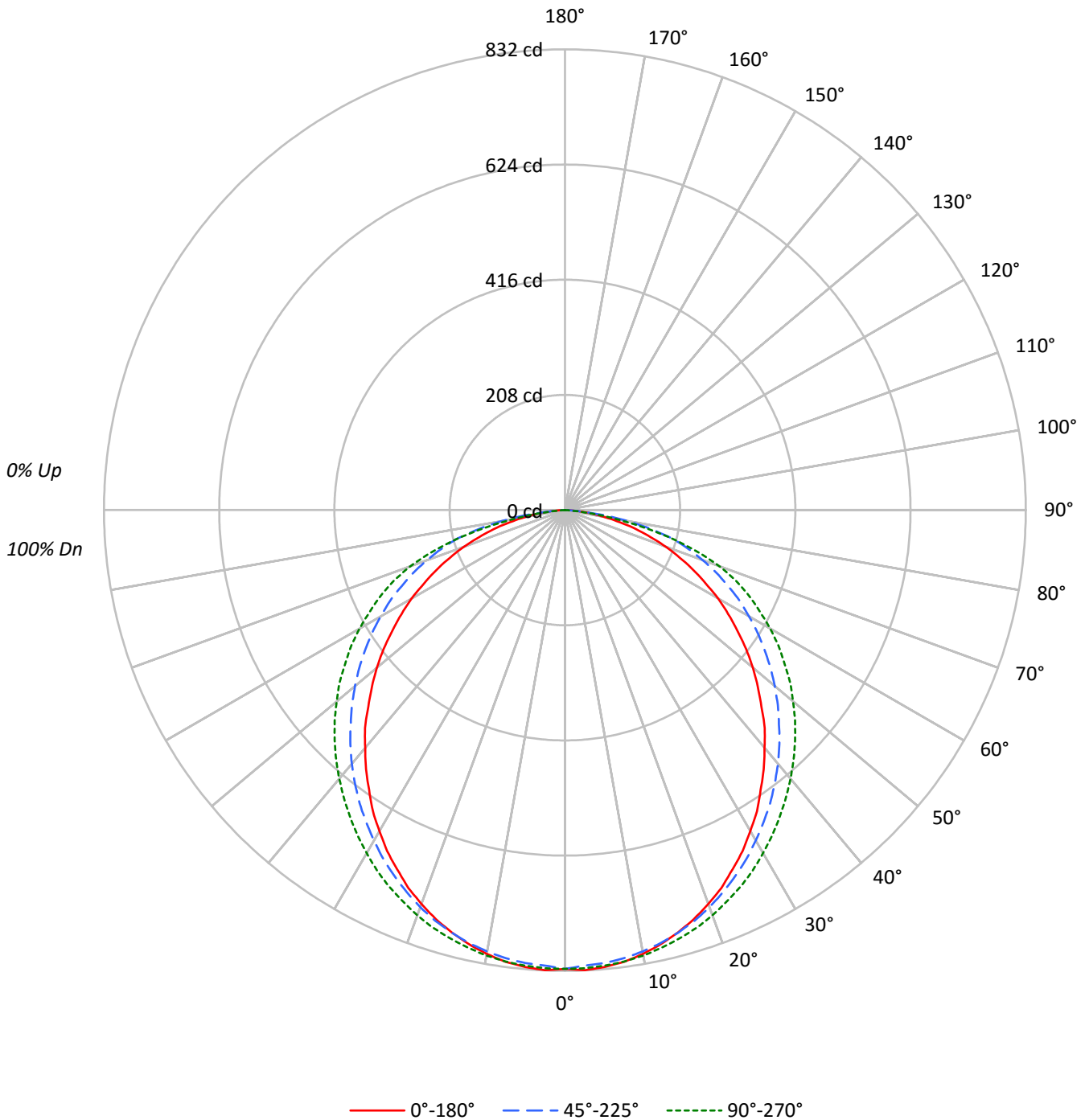
Lumens per Lamp: N/A  
Luminaire Lumens: 2405.0 lumens  
Efficiency: N/A  
Efficacy: 119.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2229	2229	2229
5°	2237	2218	2231
10°	2223	2211	2232
15°	2199	2201	2230
20°	2167	2185	2230
25°	2126	2164	2227
30°	2080	2141	2223
35°	2024	2123	2221
40°	1970	2102	2225
45°	1910	2080	2237
50°	1855	2070	2252
55°	1784	2063	2272
60°	1720	2067	2303
65°	1632	2073	2339
70°	1532	2089	2338
75°	1388	2108	2113
80°	1139	1819	1505
85°	843	861	349



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.4	3.3
10°-20°	224.0	9.3
20°-30°	337.4	14.0
30°-40°	404.9	16.8
40°-50°	422.0	17.5
50°-60°	390.6	16.2
60°-70°	315.6	13.1
70°-80°	192.4	8.0
80°-90°	39.7	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°	639.7	26.6
0°-40°	1044.6	43.4
0°-60°	1857.2	77.2
0°-90°	2405.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2405.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	828	826	821	827	826	79
15°	789	790	790	801	801	223
25°	716	720	729	747	750	330
35°	616	626	646	670	676	386
45°	502	517	546	577	588	388
55°	380	400	440	474	484	341
65°	256	282	326	358	367	253
75°	134	163	203	206	203	140
85°	27	41	28	16	11	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	828.5	828.5	828.5	828.5	828.5
2.5°	831.7	829.1	823.2	829.1	828.0
5°	828.0	825.8	821.0	826.9	825.8
7.5°	822.6	820.5	816.2	823.2	822.1
10°	813.5	812.4	809.2	817.3	816.7
12.5°	802.8	802.3	800.6	809.8	809.2
15°	789.4	789.9	789.9	800.6	800.6
17.5°	774.4	775.4	777.6	789.4	791.0
20°	756.7	758.8	763.1	776.5	778.7
22.5°	738.4	740.0	746.5	762.6	764.7
25°	715.9	720.2	728.8	747.0	750.2
27.5°	694.5	698.2	710.0	728.8	734.1
30°	669.3	675.2	689.1	709.5	715.4
32.5°	645.1	651.6	667.7	691.2	696.6
35°	616.2	625.8	646.2	669.8	676.2
37.5°	589.9	599.0	622.1	647.8	655.3
40°	560.9	572.2	598.5	625.8	633.3
42.5°	534.1	544.8	573.3	601.2	611.3
45°	501.9	517.0	546.5	577.0	587.7
47.5°	472.4	487.5	521.3	554.0	563.6
50°	443.0	459.0	494.4	528.2	537.9
52.5°	412.4	429.5	467.6	501.4	512.7
55°	380.2	400.1	439.7	474.1	484.2
57.5°	349.6	370.0	412.4	447.2	457.4
60°	319.6	340.5	384.0	417.2	427.9
62.5°	286.4	311.0	356.1	388.8	396.8
65°	256.3	281.5	325.5	358.2	367.3
67.5°	224.7	252.0	296.0	326.0	334.6
70°	194.7	223.1	265.5	293.3	297.1
72.5°	162.5	191.4	234.3	252.0	252.0
75°	133.5	163.0	202.7	205.9	203.2
77.5°	101.9	134.6	160.3	153.9	147.5
80°	73.5	105.6	117.4	105.6	97.1
82.5°	49.3	76.7	70.8	56.3	49.9
85°	27.3	40.8	27.9	15.6	11.3
87.5°	10.2	9.1	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)