

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: P312178

Luminaire Tested: **14FCZ2-25-UNV-L83050-CP125-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: P312178
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-4500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 2428.0 lumens
Efficiency: N/A
Efficacy: 117.9 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

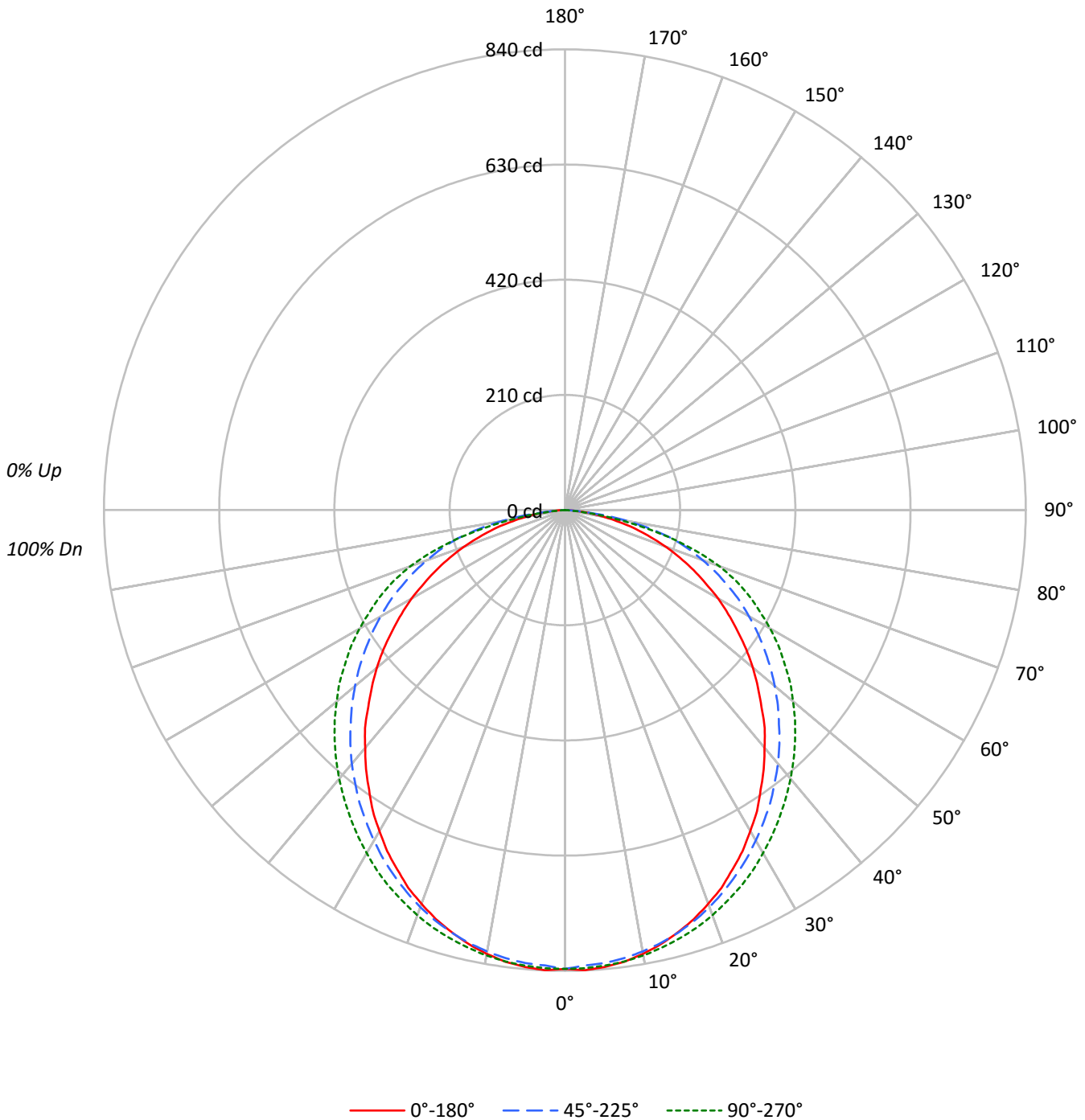
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2251	2251	2251
5°	2258	2239	2252
10°	2244	2232	2253
15°	2220	2222	2252
20°	2188	2206	2251
25°	2146	2185	2249
30°	2100	2162	2244
35°	2044	2143	2243
40°	1989	2122	2246
45°	1928	2100	2258
50°	1872	2090	2273
55°	1801	2083	2294
60°	1737	2086	2325
65°	1648	2092	2362
70°	1546	2109	2360
75°	1402	2127	2133
80°	1150	1838	1519
85°	852	871	352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.3
10°-20°	226.1	9.3
20°-30°	340.6	14.0
30°-40°	408.7	16.8
40°-50°	426.0	17.5
50°-60°	394.4	16.2
60°-70°	318.6	13.1
70°-80°	194.3	8.0
80°-90°	40.1	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°	645.9	26.6
0°-40°	1054.6	43.4
0°-60°	1875.0	77.2
0°-90°	2428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2428.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	836	834	829	835	834	79
15°	797	798	798	808	808	225
25°	723	727	736	754	757	333
35°	622	632	652	676	683	390
45°	507	522	552	582	593	392
55°	384	404	444	479	489	344
65°	259	284	329	362	371	256
75°	135	165	205	208	205	142
85°	28	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°	836.5	836.5	836.5	836.5	836.5
2.5°	839.7	837.0	831.0	837.0	835.9
5°	835.9	833.7	828.9	834.8	833.7
7.5°	830.5	828.3	824.0	831.0	830.0
10°	821.3	820.2	817.0	825.1	824.5
12.5°	810.5	809.9	808.3	817.5	817.0
15°	796.9	797.5	797.5	808.3	808.3
17.5°	781.8	782.9	785.0	796.9	798.6
20°	763.9	766.1	770.4	783.9	786.1
22.5°	745.5	747.1	753.6	769.9	772.0
25°	722.8	727.1	735.8	754.2	757.4
27.5°	701.1	704.9	716.8	735.8	741.2
30°	675.7	681.6	695.7	716.3	722.2
32.5°	651.3	657.8	674.0	697.9	703.3
35°	622.1	631.8	652.4	676.2	682.7
37.5°	595.5	604.7	628.0	654.0	661.6
40°	566.3	577.7	604.2	631.8	639.4
42.5°	539.2	550.1	578.8	606.9	617.2
45°	506.7	521.9	551.7	582.5	593.4
47.5°	477.0	492.1	526.2	559.3	569.0
50°	447.2	463.4	499.2	533.3	543.0
52.5°	416.3	433.7	472.1	506.2	517.6
55°	383.8	403.9	443.9	478.6	488.9
57.5°	353.0	373.6	416.3	451.5	461.8
60°	322.7	343.8	387.6	421.2	432.0
62.5°	289.1	314.0	359.5	392.5	400.6
65°	258.8	284.2	328.6	361.7	370.9
67.5°	226.8	254.5	298.8	329.2	337.8
70°	196.5	225.2	268.0	296.1	299.9
72.5°	164.0	193.3	236.6	254.5	254.5
75°	134.8	164.6	204.6	207.9	205.2
77.5°	102.9	135.9	161.9	155.4	148.9
80°	74.2	106.7	118.6	106.7	98.0
82.5°	49.8	77.4	71.5	56.8	50.3
85°	27.6	41.1	28.2	15.7	11.4
87.5°	10.3	9.2	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)