

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: P312172

Luminaire Tested: **14FCZ2-25-UNV-L83050-CA125-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: P312172
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-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC 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: 2453.0 lumens
Efficiency: N/A
Efficacy: 122.0 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

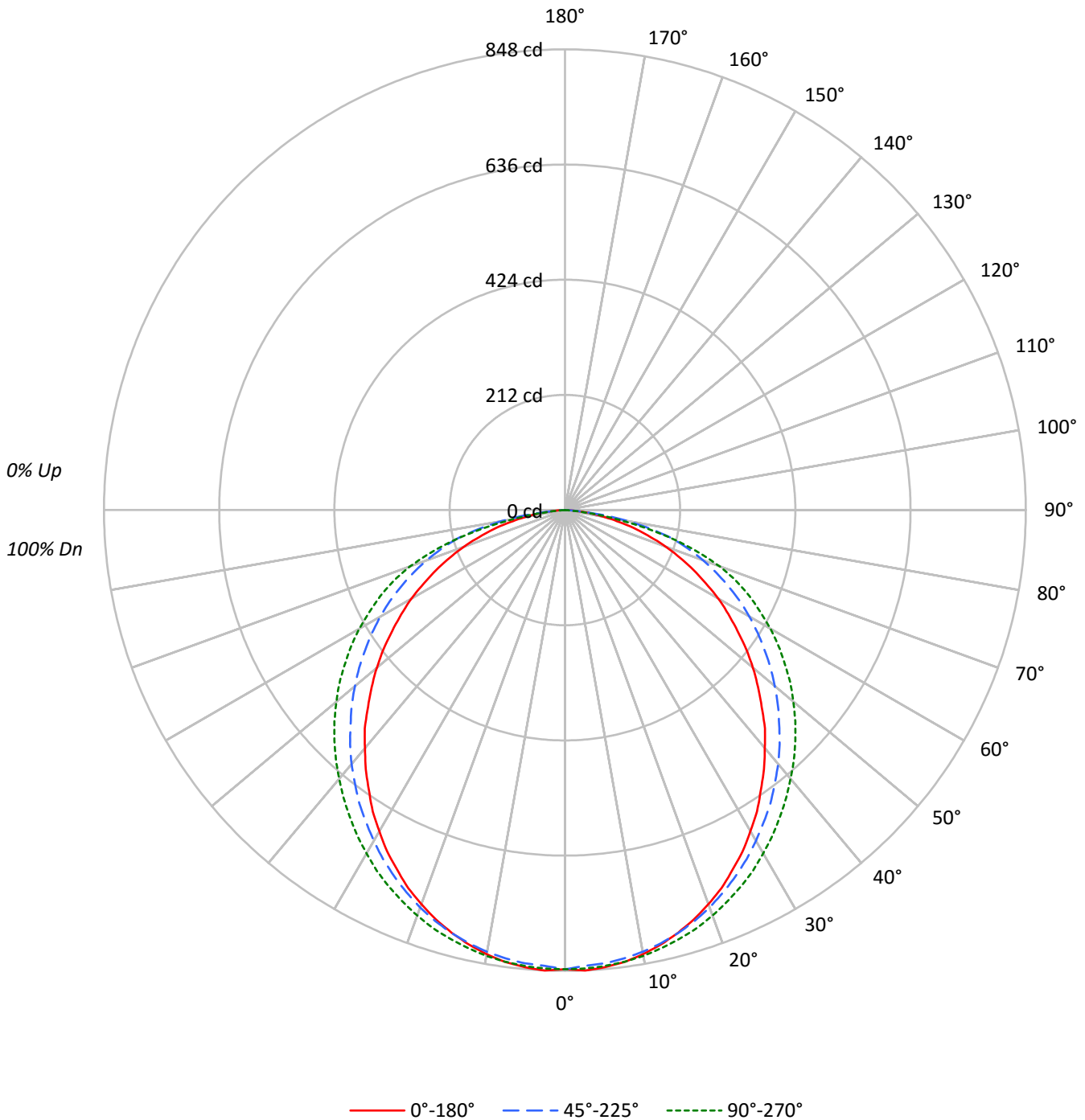
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-25-UNV-L83050-CA125-W2A-U-4000K

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°	2274	2274	2274
5°	2281	2262	2275
10°	2267	2255	2276
15°	2243	2245	2275
20°	2210	2229	2274
25°	2168	2207	2272
30°	2121	2184	2267
35°	2065	2165	2266
40°	2010	2144	2269
45°	1948	2121	2281
50°	1891	2111	2297
55°	1819	2104	2317
60°	1755	2108	2349
65°	1665	2114	2386
70°	1562	2130	2384
75°	1416	2150	2155
80°	1161	1857	1534
85°	861	877	355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.0	3.3
10°-20°	228.4	9.3
20°-30°	344.1	14.0
30°-40°	412.9	16.8
40°-50°	430.4	17.5
50°-60°	398.4	16.2
60°-70°	321.9	13.1
70°-80°	196.3	8.0
80°-90°	40.5	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°	652.5	26.6
0°-40°	1065.4	43.4
0°-60°	1894.3	77.2
0°-90°	2453.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2453.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	845	845	845	845	845	
5°	844	842	837	843	842	80
15°	805	806	806	817	817	227
25°	730	735	743	762	765	337
35°	628	638	659	683	690	394
45°	512	527	557	588	600	396
55°	388	408	448	484	494	347
65°	262	287	332	365	375	259
75°	136	166	207	210	207	143
85°	28	42	28	16	12	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	845.1	845.1	845.1	845.1	845.1
2.5°	848.3	845.6	839.6	845.6	844.5
5°	844.5	842.3	837.4	843.4	842.3
7.5°	839.0	836.9	832.5	839.6	838.5
10°	829.8	828.7	825.4	833.6	833.0
12.5°	818.8	818.3	816.6	825.9	825.4
15°	805.1	805.7	805.7	816.6	816.6
17.5°	789.8	790.9	793.1	805.1	806.8
20°	771.8	774.0	778.3	792.0	794.2
22.5°	753.2	754.8	761.4	777.8	780.0
25°	730.2	734.6	743.3	761.9	765.2
27.5°	708.3	712.2	724.2	743.3	748.8
30°	682.6	688.6	702.9	723.6	729.7
32.5°	658.0	664.6	681.0	705.0	710.5
35°	628.5	638.3	659.1	683.2	689.7
37.5°	601.7	611.0	634.5	660.7	668.4
40°	572.1	583.6	610.4	638.3	646.0
42.5°	544.8	555.7	584.7	613.2	623.5
45°	512.0	527.3	557.4	588.5	599.5
47.5°	481.9	497.2	531.7	565.0	574.9
50°	451.8	468.2	504.3	538.8	548.6
52.5°	420.6	438.1	477.0	511.4	522.9
55°	387.8	408.0	448.5	483.5	493.9
57.5°	356.6	377.4	420.6	456.2	466.6
60°	326.0	347.3	391.6	425.5	436.5
62.5°	292.1	317.2	363.2	396.6	404.8
65°	261.5	287.2	332.0	365.4	374.7
67.5°	229.2	257.1	301.9	332.6	341.3
70°	198.5	227.5	270.7	299.2	303.0
72.5°	165.7	195.3	239.0	257.1	257.1
75°	136.2	166.3	206.8	210.0	207.3
77.5°	103.9	137.3	163.5	157.0	150.4
80°	74.9	107.8	119.8	107.8	99.0
82.5°	50.3	78.2	72.2	57.4	50.9
85°	27.9	41.6	28.4	15.9	11.5
87.5°	10.4	9.3	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)