

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: P312300

Luminaire Tested: **14FCZ2-20-UNV-L83050-S-CP125-W2A-U-3000K**

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: P312300
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L83050-S-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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: 1874.0 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

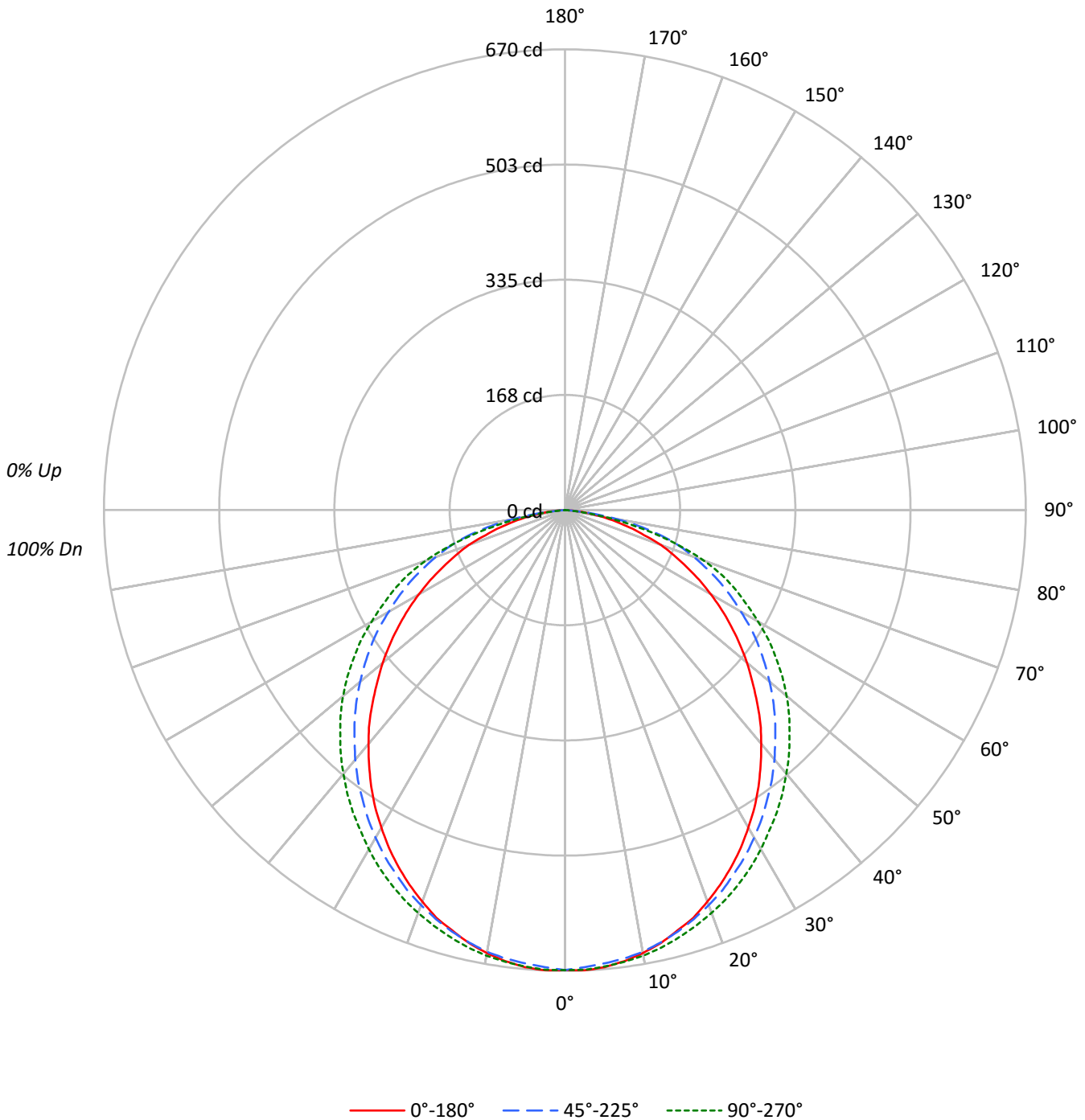
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1800	1800	1800
5°	1802	1787	1800
10°	1787	1782	1797
15°	1763	1768	1791
20°	1735	1751	1786
25°	1700	1730	1779
30°	1657	1709	1770
35°	1612	1685	1764
40°	1560	1665	1759
45°	1503	1644	1757
50°	1447	1626	1762
55°	1386	1613	1757
60°	1320	1590	1745
65°	1242	1585	1745
70°	1170	1572	1696
75°	1015	1536	1449
80°	821	1238	965
85°	546	429	287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	3.4
10°-20°	179.8	9.6
20°-30°	269.7	14.4
30°-40°	321.7	17.2
40°-50°	332.5	17.7
50°-60°	303.6	16.2
60°-70°	238.9	12.7
70°-80°	139.1	7.4
80°-90°	25.6	1.4
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°	512.6	27.4
0°-40°	834.2	44.5
0°-60°	1470.4	78.5
0°-90°	1874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	669	669	669	669	669	
5°	667	665	662	667	666	63
15°	633	634	635	643	643	179
25°	572	575	583	596	599	264
35°	491	497	513	532	537	307
45°	395	408	432	456	462	305
55°	296	311	344	369	374	264
65°	195	216	249	268	274	194
75°	98	121	148	145	139	104
85°	18	25	14	11	9	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	669.0	669.0	669.0	669.0	669.0
2.5°	669.9	668.1	665.3	669.9	669.0
5°	667.1	665.3	661.6	667.1	666.2
7.5°	661.6	659.7	657.8	663.4	662.5
10°	654.1	653.2	652.3	658.8	657.8
12.5°	644.8	644.8	643.9	651.3	651.3
15°	632.8	633.7	634.6	643.0	643.0
17.5°	621.6	620.7	623.5	632.8	633.7
20°	605.8	607.7	611.4	622.5	623.5
22.5°	590.0	591.9	598.4	609.5	612.3
25°	572.4	575.1	582.6	596.5	599.3
27.5°	553.8	557.5	567.7	582.6	585.4
30°	533.3	538.9	550.1	566.8	569.6
32.5°	512.9	518.5	532.4	549.1	552.8
35°	490.6	497.1	512.9	532.4	537.0
37.5°	467.4	475.7	494.3	513.8	519.4
40°	444.1	453.4	473.9	494.3	500.8
42.5°	420.9	430.2	452.5	475.7	482.2
45°	394.9	407.9	432.1	456.2	461.8
47.5°	369.8	383.7	410.7	434.8	442.3
50°	345.6	359.6	388.4	413.5	420.9
52.5°	320.6	335.4	366.1	392.1	398.6
55°	295.5	311.3	343.8	368.9	374.4
57.5°	270.4	287.1	320.6	344.7	351.2
60°	245.3	262.9	295.5	319.6	324.3
62.5°	220.2	238.8	272.2	293.6	298.3
65°	195.1	215.6	249.0	268.5	274.1
67.5°	171.0	191.4	223.9	242.5	247.2
70°	148.7	167.2	199.8	213.7	215.6
72.5°	120.8	144.0	175.6	183.0	178.4
75°	97.6	120.8	147.7	144.9	139.4
77.5°	74.3	97.6	115.2	105.9	98.5
80°	53.0	76.2	79.9	66.0	62.3
82.5°	34.4	53.0	44.6	34.4	27.9
85°	17.7	25.1	13.9	11.1	9.3
87.5°	5.6	3.7	1.9	1.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)