

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: P312301

Luminaire Tested: **14FCZ2-20-UNV-L83050-S-CP125-W2A-U-3500K**

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: P312301
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-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3500K 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: 1983.0 lumens
Efficiency: N/A
Efficacy: 120.2 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

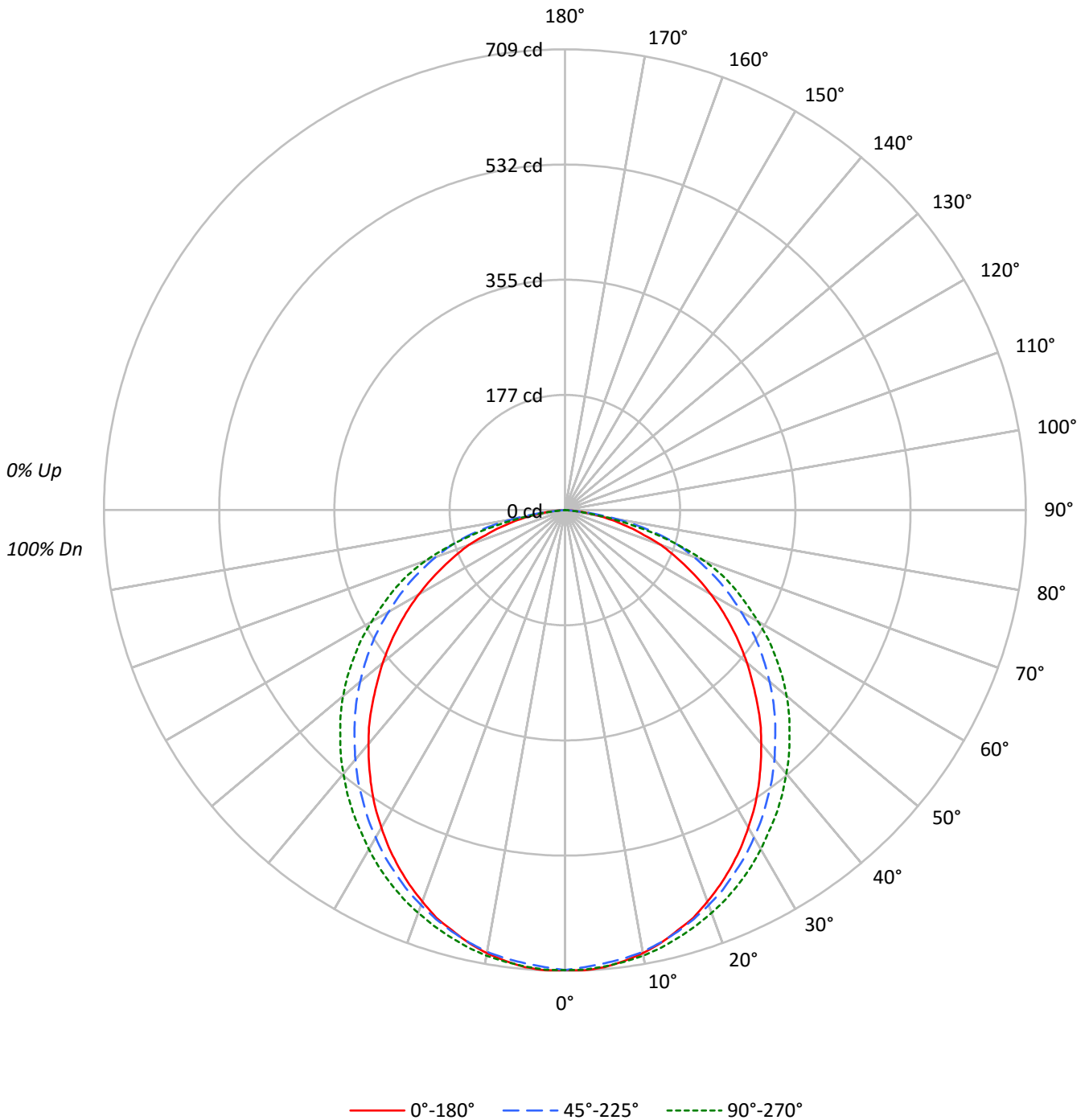
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1905	1905	1905
5°	1907	1891	1904
10°	1891	1886	1902
15°	1865	1871	1896
20°	1836	1853	1889
25°	1798	1830	1883
30°	1754	1808	1873
35°	1705	1783	1867
40°	1651	1761	1861
45°	1590	1740	1859
50°	1531	1721	1865
55°	1467	1707	1859
60°	1397	1683	1847
65°	1315	1678	1847
70°	1238	1663	1795
75°	1073	1625	1534
80°	868	1311	1021
85°	577	454	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	3.4
10°-20°	190.2	9.6
20°-30°	285.3	14.4
30°-40°	340.4	17.2
40°-50°	351.9	17.7
50°-60°	321.3	16.2
60°-70°	252.8	12.7
70°-80°	147.2	7.4
80°-90°	27.1	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°	542.4	27.4
0°-40°	882.8	44.5
0°-60°	1555.9	78.5
0°-90°	1983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1983.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	706	704	700	706	705	67
15°	670	670	672	680	680	189
25°	606	609	616	631	634	279
35°	519	526	543	563	568	324
45°	418	432	457	483	489	323
55°	313	329	364	390	396	280
65°	206	228	264	284	290	205
75°	103	128	156	153	148	110
85°	19	26	15	12	10	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	707.9	707.9	707.9	707.9	707.9
2.5°	708.9	706.9	704.0	708.9	707.9
5°	705.9	704.0	700.0	705.9	704.9
7.5°	700.0	698.1	696.1	702.0	701.0
10°	692.2	691.2	690.2	697.1	696.1
12.5°	682.3	682.3	681.4	689.2	689.2
15°	669.6	670.5	671.5	680.4	680.4
17.5°	657.8	656.8	659.7	669.6	670.5
20°	641.0	643.0	646.9	658.7	659.7
22.5°	624.3	626.3	633.2	645.0	647.9
25°	605.6	608.6	616.5	631.2	634.2
27.5°	586.0	589.9	600.7	616.5	619.4
30°	564.4	570.3	582.0	599.7	602.7
32.5°	542.7	548.6	563.4	581.1	585.0
35°	519.1	526.0	542.7	563.4	568.3
37.5°	494.5	503.4	523.1	543.7	549.6
40°	470.0	479.8	501.4	523.1	529.9
42.5°	445.4	455.2	478.8	503.4	510.3
45°	417.9	431.6	457.2	482.7	488.6
47.5°	391.3	406.1	434.6	460.1	468.0
50°	365.7	380.5	411.0	437.5	445.4
52.5°	339.2	354.9	387.4	414.9	421.8
55°	312.7	329.4	363.8	390.3	396.2
57.5°	286.1	303.8	339.2	364.8	371.6
60°	259.6	278.2	312.7	338.2	343.1
62.5°	233.0	252.7	288.1	310.7	315.6
65°	206.5	228.1	263.5	284.1	290.0
67.5°	180.9	202.5	236.9	256.6	261.5
70°	157.3	177.0	211.4	226.1	228.1
72.5°	127.8	152.4	185.8	193.7	188.8
75°	103.2	127.8	156.3	153.4	147.5
77.5°	78.7	103.2	121.9	112.1	104.2
80°	56.0	80.6	84.6	69.8	65.9
82.5°	36.4	56.0	47.2	36.4	29.5
85°	18.7	26.5	14.7	11.8	9.8
87.5°	5.9	3.9	2.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)