

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: P312297

Luminaire Tested: **14FCZ2-20-UNV-L83050-S-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: P312297
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-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 2124.0 lumens
Efficiency: N/A
Efficacy: 125.7 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

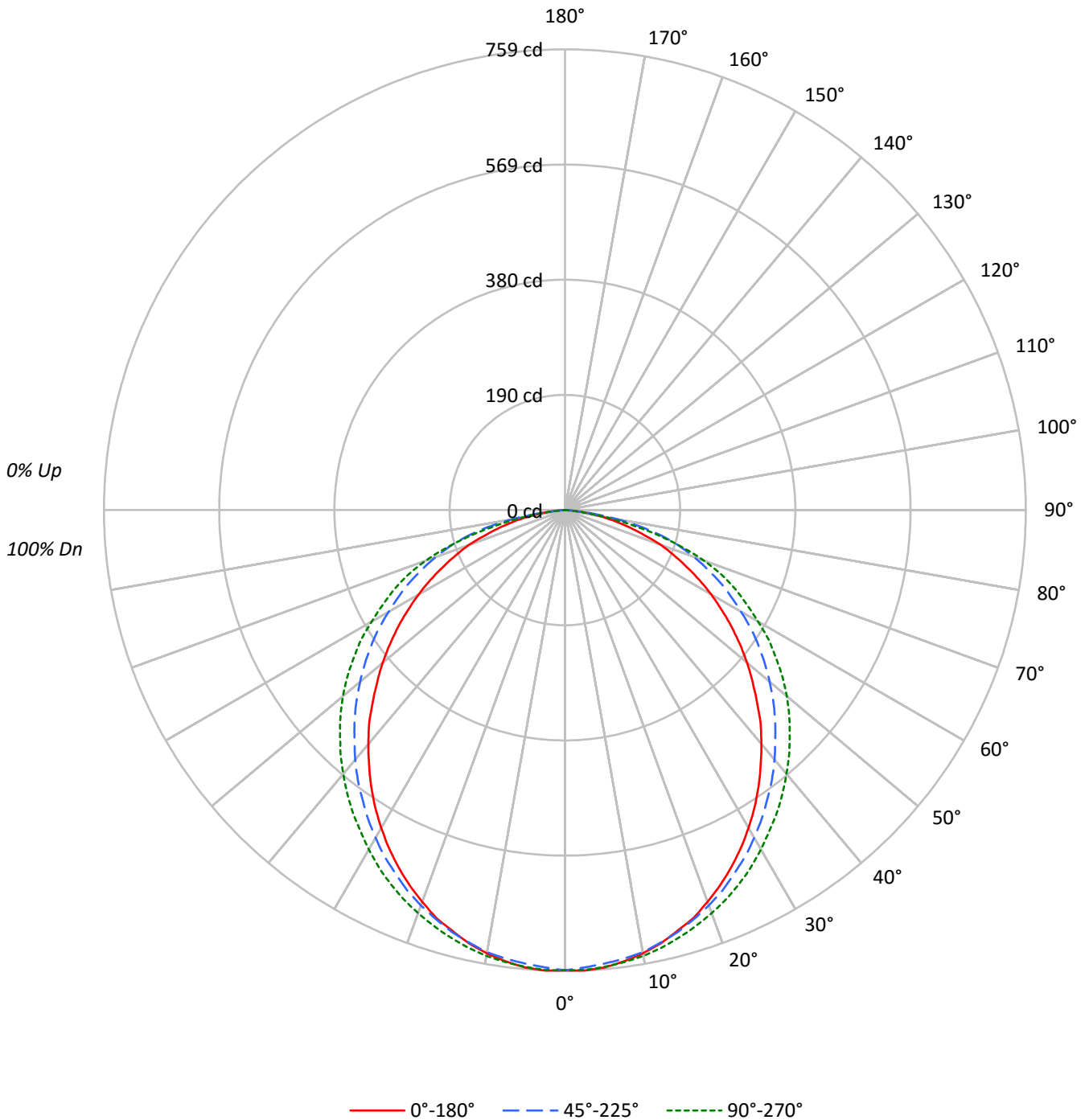
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2040	2040	2040
5°	2042	2025	2040
10°	2026	2020	2037
15°	1998	2004	2030
20°	1966	1984	2023
25°	1926	1961	2017
30°	1878	1937	2006
35°	1827	1910	2000
40°	1768	1887	1994
45°	1703	1864	1992
50°	1640	1843	1997
55°	1571	1828	1991
60°	1496	1802	1978
65°	1408	1797	1978
70°	1326	1781	1922
75°	1150	1740	1643
80°	930	1404	1094
85°	618	488	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.6	3.4
10°-20°	203.7	9.6
20°-30°	305.6	14.4
30°-40°	364.6	17.2
40°-50°	376.9	17.7
50°-60°	344.1	16.2
60°-70°	270.8	12.7
70°-80°	157.6	7.4
80°-90°	29.0	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°	581.0	27.4
0°-40°	945.5	44.5
0°-60°	1666.5	78.5
0°-90°	2124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2124.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	756	754	750	756	755	72
15°	717	718	719	729	729	202
25°	649	652	660	676	679	299
35°	556	563	581	603	609	348
45°	448	462	490	517	523	346
55°	335	353	390	418	424	299
65°	221	244	282	304	311	220
75°	111	137	167	164	158	118
85°	20	28	16	13	10	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	758.2	758.2	758.2	758.2	758.2
2.5°	759.3	757.2	754.0	759.3	758.2
5°	756.1	754.0	749.8	756.1	755.1
7.5°	749.8	747.7	745.6	751.9	750.9
10°	741.4	740.3	739.3	746.6	745.6
12.5°	730.9	730.9	729.8	738.2	738.2
15°	717.2	718.2	719.3	728.7	728.7
17.5°	704.5	703.5	706.6	717.2	718.2
20°	686.6	688.7	692.9	705.6	706.6
22.5°	668.7	670.8	678.2	690.8	694.0
25°	648.7	651.9	660.3	676.1	679.3
27.5°	627.6	631.9	643.4	660.3	663.5
30°	604.5	610.8	623.4	642.4	645.6
32.5°	581.3	587.6	603.4	622.4	626.6
35°	556.0	563.4	581.3	603.4	608.7
37.5°	529.7	539.2	560.2	582.4	588.7
40°	503.4	513.9	537.1	560.2	567.6
42.5°	477.1	487.6	512.9	539.2	546.6
45°	447.6	462.3	489.7	517.1	523.4
47.5°	419.1	434.9	465.5	492.9	501.3
50°	391.8	407.6	440.2	468.6	477.1
52.5°	363.3	380.2	414.9	444.4	451.8
55°	334.9	352.8	389.6	418.1	424.4
57.5°	306.5	325.4	363.3	390.7	398.1
60°	278.0	298.0	334.9	362.3	367.5
62.5°	249.6	270.6	308.6	332.8	338.0
65°	221.2	244.3	282.2	304.3	310.7
67.5°	193.8	216.9	253.8	274.9	280.1
70°	168.5	189.6	226.4	242.2	244.3
72.5°	136.9	163.2	199.0	207.5	202.2
75°	110.6	136.9	167.4	164.3	158.0
77.5°	84.2	110.6	130.6	120.1	111.6
80°	60.0	86.4	90.6	74.8	70.6
82.5°	39.0	60.0	50.5	39.0	31.6
85°	20.0	28.4	15.8	12.6	10.5
87.5°	6.3	4.2	2.1	2.1	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)