

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: P312326

Luminaire Tested: **14FCZ2-25-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: P312326
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: 14FCZ2-25-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: 2315.0 lumens
Efficiency: N/A
Efficacy: 118.1 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

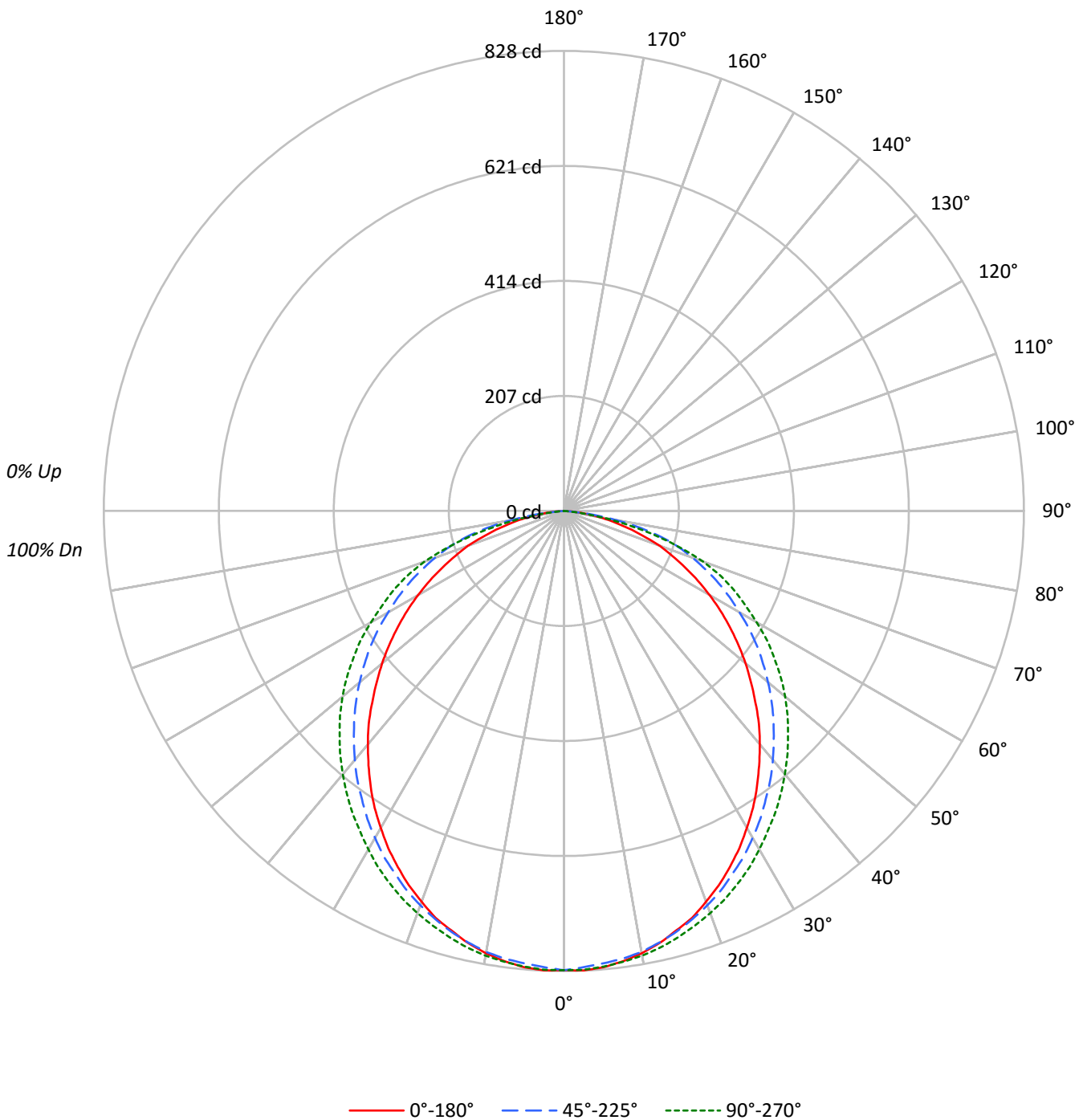
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2224	2224	2224
5°	2226	2207	2223
10°	2208	2202	2220
15°	2178	2184	2213
20°	2143	2163	2206
25°	2099	2137	2198
30°	2047	2111	2186
35°	1991	2081	2179
40°	1927	2056	2173
45°	1856	2031	2171
50°	1788	2009	2177
55°	1712	1993	2170
60°	1631	1964	2156
65°	1535	1959	2156
70°	1445	1942	2095
75°	1253	1897	1790
80°	1013	1530	1192
85°	673	531	355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	3.4
10°-20°	222.1	9.6
20°-30°	333.1	14.4
30°-40°	397.4	17.2
40°-50°	410.8	17.7
50°-60°	375.1	16.2
60°-70°	295.1	12.7
70°-80°	171.8	7.4
80°-90°	31.7	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°	633.2	27.4
0°-40°	1030.6	44.5
0°-60°	1816.4	78.5
0°-90°	2315.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2315.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	826	826	826	826	826	
5°	824	822	817	824	823	78
15°	782	783	784	794	794	221
25°	707	710	720	737	740	326
35°	606	614	634	658	663	379
45°	488	504	534	564	570	377
55°	365	384	425	456	463	326
65°	241	266	308	332	339	239
75°	120	149	182	179	172	128
85°	22	31	17	14	12	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	826.4	826.4	826.4	826.4	826.4
2.5°	827.6	825.3	821.8	827.6	826.4
5°	824.1	821.8	817.2	824.1	823.0
7.5°	817.2	814.9	812.6	819.5	818.4
10°	808.1	806.9	805.8	813.8	812.6
12.5°	796.6	796.6	795.4	804.6	804.6
15°	781.7	782.8	783.9	794.3	794.3
17.5°	767.9	766.7	770.2	781.7	782.8
20°	748.4	750.7	755.3	769.0	770.2
22.5°	728.9	731.1	739.2	753.0	756.4
25°	707.0	710.5	719.7	736.9	740.3
27.5°	684.1	688.7	701.3	719.7	723.1
30°	658.8	665.7	679.5	700.2	703.6
32.5°	633.6	640.5	657.7	678.4	682.9
35°	606.0	614.1	633.6	657.7	663.4
37.5°	577.3	587.7	610.6	634.7	641.6
40°	548.6	560.1	585.4	610.6	618.7
42.5°	520.0	531.4	559.0	587.7	595.7
45°	487.8	503.9	533.7	563.6	570.5
47.5°	456.8	474.0	507.3	537.2	546.4
50°	427.0	444.2	479.8	510.8	520.0
52.5°	396.0	414.4	452.2	484.4	492.4
55°	365.0	384.5	424.7	455.7	462.6
57.5°	334.0	354.7	396.0	425.8	433.9
60°	303.0	324.8	365.0	394.8	400.6
62.5°	272.0	295.0	336.3	362.7	368.4
65°	241.0	266.3	307.6	331.7	338.6
67.5°	211.2	236.4	276.6	299.6	305.3
70°	183.6	206.6	246.8	264.0	266.3
72.5°	149.2	177.9	216.9	226.1	220.4
75°	120.5	149.2	182.5	179.1	172.2
77.5°	91.8	120.5	142.3	130.8	121.7
80°	65.4	94.1	98.7	81.5	76.9
82.5°	42.5	65.4	55.1	42.5	34.4
85°	21.8	31.0	17.2	13.8	11.5
87.5°	6.9	4.6	2.3	2.3	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)