

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: P312318

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-CA08-W2A-U-4500K**

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: P312318
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-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2511.0 lumens
Efficiency: N/A
Efficacy: 121.9 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

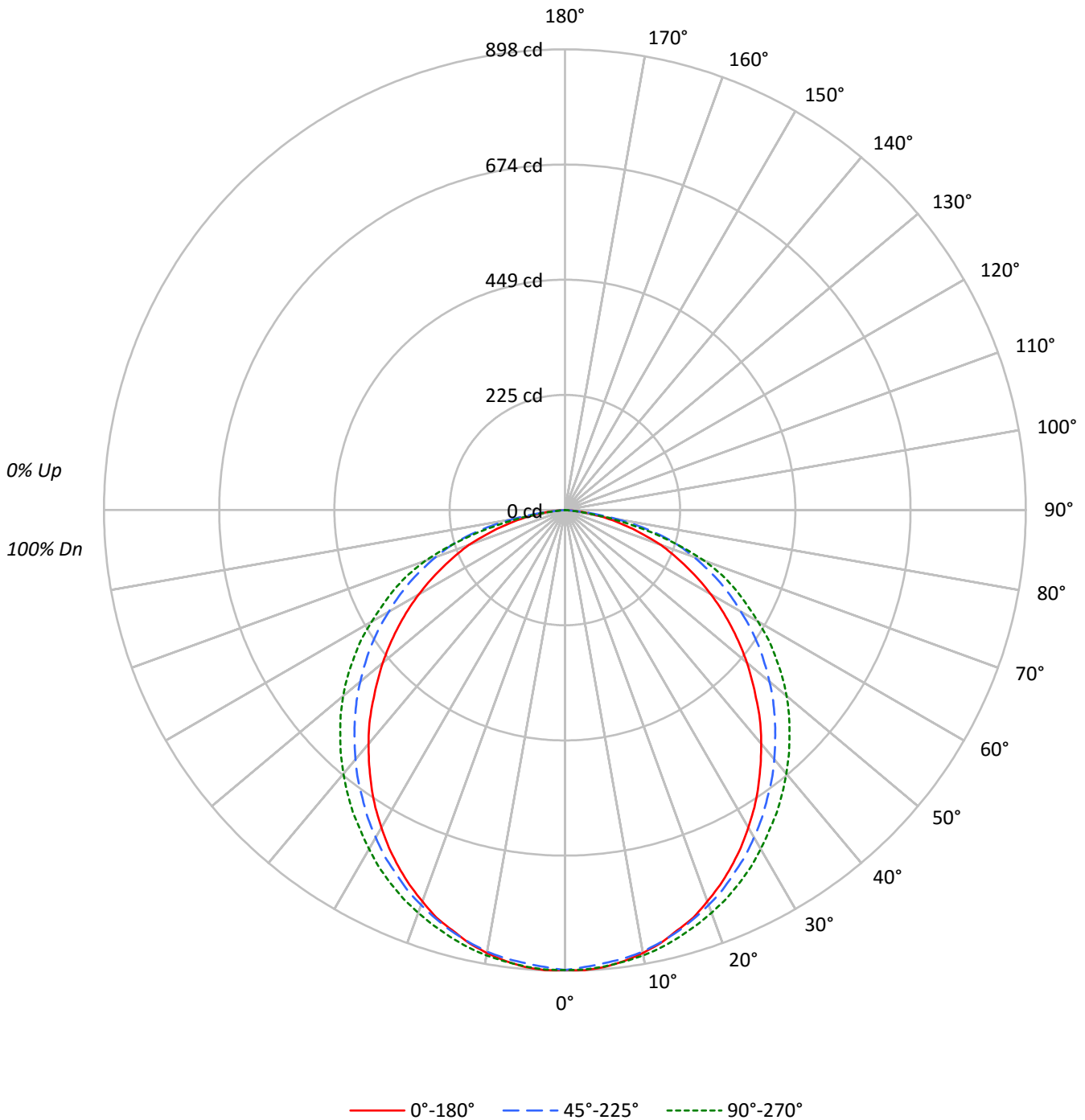
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2412	2412	2412
5°	2415	2394	2411
10°	2395	2388	2408
15°	2362	2369	2400
20°	2324	2346	2392
25°	2277	2318	2384
30°	2220	2290	2371
35°	2159	2258	2364
40°	2090	2230	2357
45°	2014	2203	2355
50°	1939	2179	2361
55°	1857	2161	2354
60°	1769	2131	2338
65°	1664	2125	2339
70°	1567	2106	2272
75°	1359	2059	1941
80°	1100	1660	1292
85°	732	577	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.6	3.4
10°-20°	240.9	9.6
20°-30°	361.3	14.4
30°-40°	431.0	17.2
40°-50°	445.6	17.7
50°-60°	406.8	16.2
60°-70°	320.1	12.7
70°-80°	186.4	7.4
80°-90°	34.3	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°	686.8	27.4
0°-40°	1117.8	44.5
0°-60°	1970.2	78.5
0°-90°	2511.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2511.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	896	896	896	896	896	
5°	894	891	886	894	893	85
15°	848	849	850	862	862	239
25°	767	771	781	799	803	353
35°	657	666	687	713	720	411
45°	529	546	579	611	619	409
55°	396	417	461	494	502	354
65°	261	289	334	360	367	260
75°	131	162	198	194	187	139
85°	24	34	19	15	12	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	896.4	896.4	896.4	896.4	896.4
2.5°	897.6	895.1	891.4	897.6	896.4
5°	893.9	891.4	886.4	893.9	892.7
7.5°	886.4	883.9	881.4	888.9	887.7
10°	876.5	875.2	874.0	882.7	881.4
12.5°	864.0	864.0	862.8	872.7	872.7
15°	847.8	849.1	850.3	861.5	861.5
17.5°	832.9	831.6	835.4	847.8	849.1
20°	811.7	814.2	819.2	834.1	835.4
22.5°	790.6	793.1	801.8	816.7	820.4
25°	766.9	770.6	780.6	799.3	803.0
27.5°	742.0	747.0	760.7	780.6	784.3
30°	714.6	722.1	737.0	759.4	763.2
32.5°	687.2	694.7	713.4	735.8	740.8
35°	657.3	666.1	687.2	713.4	719.6
37.5°	626.2	637.4	662.3	688.5	695.9
40°	595.1	607.6	634.9	662.3	671.0
42.5°	564.0	576.4	606.3	637.4	646.1
45°	529.1	546.5	578.9	611.3	618.8
47.5°	495.5	514.2	550.3	582.7	592.6
50°	463.1	481.8	520.4	554.0	564.0
52.5°	429.5	449.4	490.5	525.4	534.1
55°	395.9	417.1	460.6	494.3	501.7
57.5°	362.3	384.7	429.5	461.9	470.6
60°	328.7	352.3	395.9	428.3	434.5
62.5°	295.1	320.0	364.8	393.4	399.6
65°	261.4	288.8	333.7	359.8	367.3
67.5°	229.1	256.5	300.0	324.9	331.2
70°	199.2	224.1	267.7	286.3	288.8
72.5°	161.8	193.0	235.3	245.3	239.0
75°	130.7	161.8	198.0	194.2	186.7
77.5°	99.6	130.7	154.4	141.9	132.0
80°	71.0	102.1	107.1	88.4	83.4
82.5°	46.1	71.0	59.8	46.1	37.3
85°	23.7	33.6	18.7	14.9	12.4
87.5°	7.5	5.0	2.5	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)