

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: P307650

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP250-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: P307650
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB 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: 2642.0 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

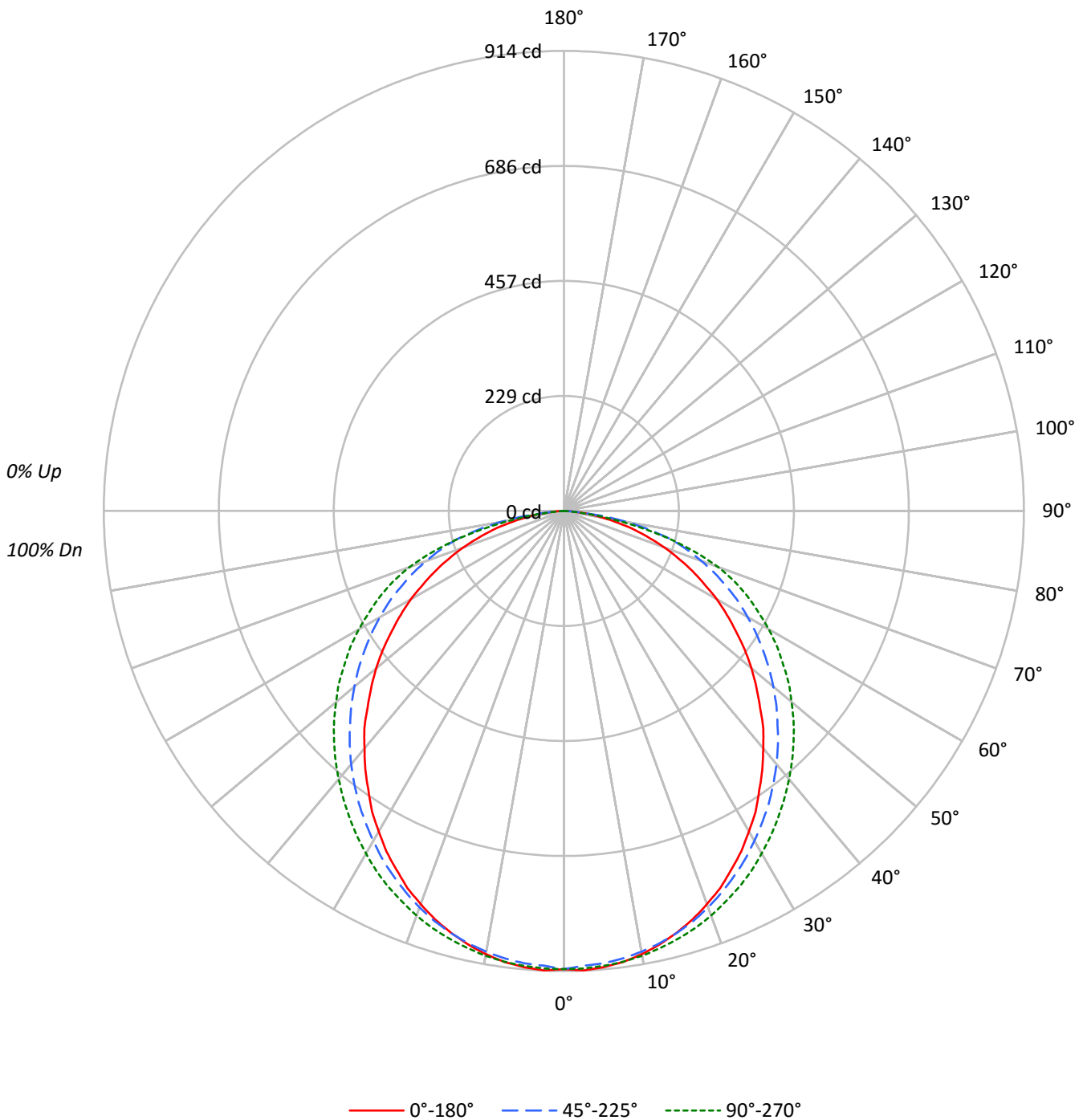
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2449	2449	2449
5°	2457	2436	2451
10°	2442	2429	2452
15°	2416	2418	2450
20°	2380	2401	2450
25°	2335	2377	2447
30°	2284	2352	2442
35°	2224	2332	2440
40°	2165	2309	2444
45°	2098	2285	2457
50°	2037	2274	2474
55°	1960	2267	2496
60°	1890	2270	2530
65°	1793	2277	2569
70°	1682	2294	2568
75°	1525	2315	2322
80°	1251	1999	1652
85°	926	945	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	3.3
10°-20°	246.0	9.3
20°-30°	370.6	14.0
30°-40°	444.7	16.8
40°-50°	463.6	17.5
50°-60°	429.1	16.2
60°-70°	346.7	13.1
70°-80°	211.4	8.0
80°-90°	43.6	1.7
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°	702.8	26.6
0°-40°	1147.5	43.4
0°-60°	2040.2	77.2
0°-90°	2642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2642.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	910	907	902	908	907	86
15°	867	868	868	880	880	244
25°	786	791	801	821	824	362
35°	677	688	710	736	743	424
45°	551	568	600	634	646	426
55°	418	440	483	521	532	374
65°	282	309	358	394	404	278
75°	147	179	223	226	223	154
85°	30	45	31	17	12	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.2	910.2	910.2	910.2	910.2
2.5°	913.7	910.8	904.3	910.8	909.6
5°	909.6	907.2	901.9	908.4	907.2
7.5°	903.7	901.3	896.6	904.3	903.1
10°	893.7	892.5	889.0	897.8	897.2
12.5°	881.9	881.3	879.5	889.6	889.0
15°	867.2	867.8	867.8	879.5	879.5
17.5°	850.7	851.9	854.2	867.2	868.9
20°	831.2	833.6	838.3	853.0	855.4
22.5°	811.2	813.0	820.0	837.7	840.1
25°	786.5	791.2	800.6	820.6	824.2
27.5°	762.9	767.0	780.0	800.6	806.5
30°	735.2	741.7	757.0	779.4	785.9
32.5°	708.7	715.8	733.4	759.4	765.3
35°	676.9	687.5	709.9	735.8	742.9
37.5°	648.0	658.0	683.4	711.6	719.9
40°	616.2	628.6	657.4	687.5	695.7
42.5°	586.8	598.5	629.8	660.4	671.6
45°	551.4	567.9	600.3	633.9	645.7
47.5°	519.0	535.5	572.6	608.6	619.2
50°	486.6	504.3	543.2	580.3	590.9
52.5°	453.0	471.9	513.7	550.8	563.2
55°	417.7	439.5	483.1	520.8	532.0
57.5°	384.1	406.5	453.0	491.3	502.5
60°	351.1	374.1	421.8	458.3	470.1
62.5°	314.6	341.7	391.2	427.1	435.9
65°	281.6	309.3	357.6	393.5	403.5
67.5°	246.8	276.9	325.2	358.2	367.6
70°	213.8	245.1	291.6	322.2	326.4
72.5°	178.5	210.3	257.4	276.9	276.9
75°	146.7	179.1	222.7	226.2	223.3
77.5°	111.9	147.9	176.1	169.1	162.0
80°	80.7	116.1	129.0	116.1	106.6
82.5°	54.2	84.2	77.8	61.9	54.8
85°	30.0	44.8	30.6	17.1	12.4
87.5°	11.2	10.0	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)