

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: P307651

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP250-W2A-U-5000K**

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: P307651
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-5000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 5000K 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: 2677.0 lumens
Efficiency: N/A
Efficacy: 109.7 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

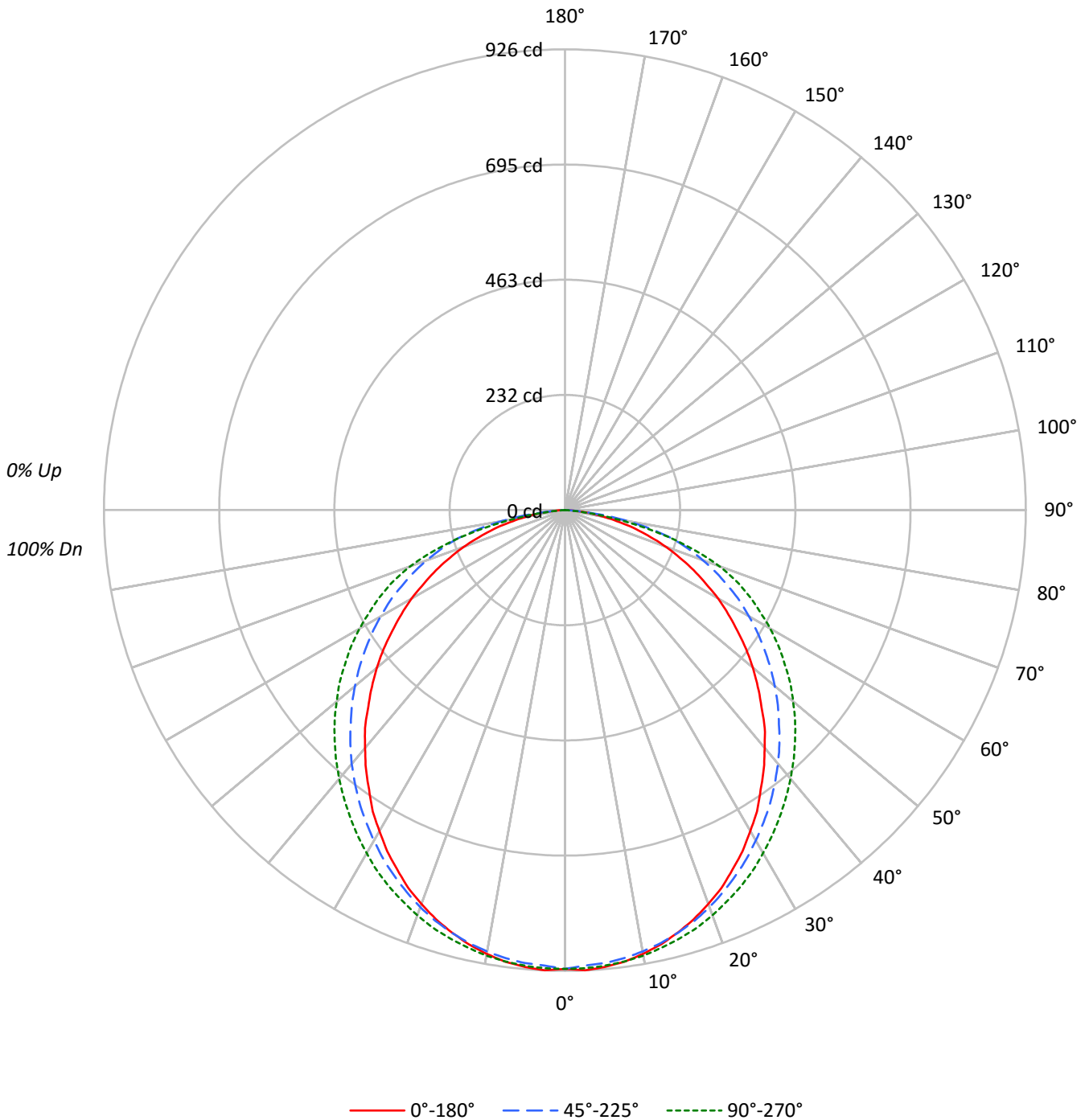
Input Watts (W): 24.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2482	2482	2482
5°	2489	2469	2483
10°	2474	2461	2484
15°	2448	2450	2483
20°	2412	2432	2482
25°	2366	2409	2480
30°	2315	2383	2474
35°	2253	2363	2473
40°	2193	2340	2477
45°	2126	2315	2490
50°	2064	2304	2506
55°	1985	2297	2529
60°	1915	2300	2563
65°	1817	2307	2604
70°	1705	2325	2602
75°	1545	2346	2352
80°	1268	2025	1674
85°	939	957	386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.3	3.3
10°-20°	249.3	9.3
20°-30°	375.5	14.0
30°-40°	450.6	16.8
40°-50°	469.7	17.5
50°-60°	434.8	16.2
60°-70°	351.3	13.1
70°-80°	214.2	8.0
80°-90°	44.2	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°	712.1	26.6
0°-40°	1162.7	43.4
0°-60°	2067.3	77.2
0°-90°	2677.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2677.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	922	919	914	920	919	87
15°	879	879	879	891	891	248
25°	797	802	811	832	835	367
35°	686	697	719	746	753	430
45°	559	575	608	642	654	432
55°	423	445	490	528	539	379
65°	285	313	362	399	409	282
75°	149	182	226	229	226	156
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°	922.2	922.2	922.2	922.2	922.2
2.5°	925.8	922.8	916.3	922.8	921.6
5°	921.6	919.3	913.9	920.4	919.3
7.5°	915.7	913.3	908.5	916.3	915.1
10°	905.5	904.3	900.7	909.7	909.1
12.5°	893.6	893.0	891.2	901.3	900.7
15°	878.7	879.3	879.3	891.2	891.2
17.5°	861.9	863.1	865.5	878.7	880.5
20°	842.2	844.6	849.4	864.3	866.7
22.5°	822.0	823.7	830.9	848.8	851.2
25°	796.9	801.7	811.2	831.5	835.1
27.5°	773.0	777.2	790.3	811.2	817.2
30°	745.0	751.5	767.0	789.7	796.3
32.5°	718.1	725.3	743.2	769.4	775.4
35°	685.9	696.6	719.3	745.5	752.7
37.5°	656.6	666.8	692.4	721.1	729.4
40°	624.4	636.9	666.2	696.6	705.0
42.5°	594.5	606.5	638.1	669.1	680.5
45°	558.7	575.4	608.3	642.3	654.2
47.5°	525.9	542.6	580.2	616.6	627.4
50°	493.1	511.0	550.4	588.0	598.7
52.5°	459.0	478.1	520.5	558.1	570.7
55°	423.2	445.3	489.5	527.7	539.0
57.5°	389.2	411.9	459.0	497.8	509.2
60°	355.8	379.0	427.4	464.4	476.3
62.5°	318.8	346.2	396.4	432.8	441.7
65°	285.3	313.4	362.3	398.7	408.9
67.5°	250.1	280.6	329.5	362.9	372.5
70°	216.7	248.3	295.5	326.5	330.7
72.5°	180.9	213.1	260.9	280.6	280.6
75°	148.6	181.5	225.6	229.2	226.2
77.5°	113.4	149.8	178.5	171.3	164.2
80°	81.8	117.6	130.7	117.6	108.0
82.5°	54.9	85.4	78.8	62.7	55.5
85°	30.4	45.4	31.0	17.3	12.5
87.5°	11.3	10.1	3.0	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)