

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: P307648

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP250-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: P307648
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-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" 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: 2539.0 lumens
Efficiency: N/A
Efficacy: 106.2 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

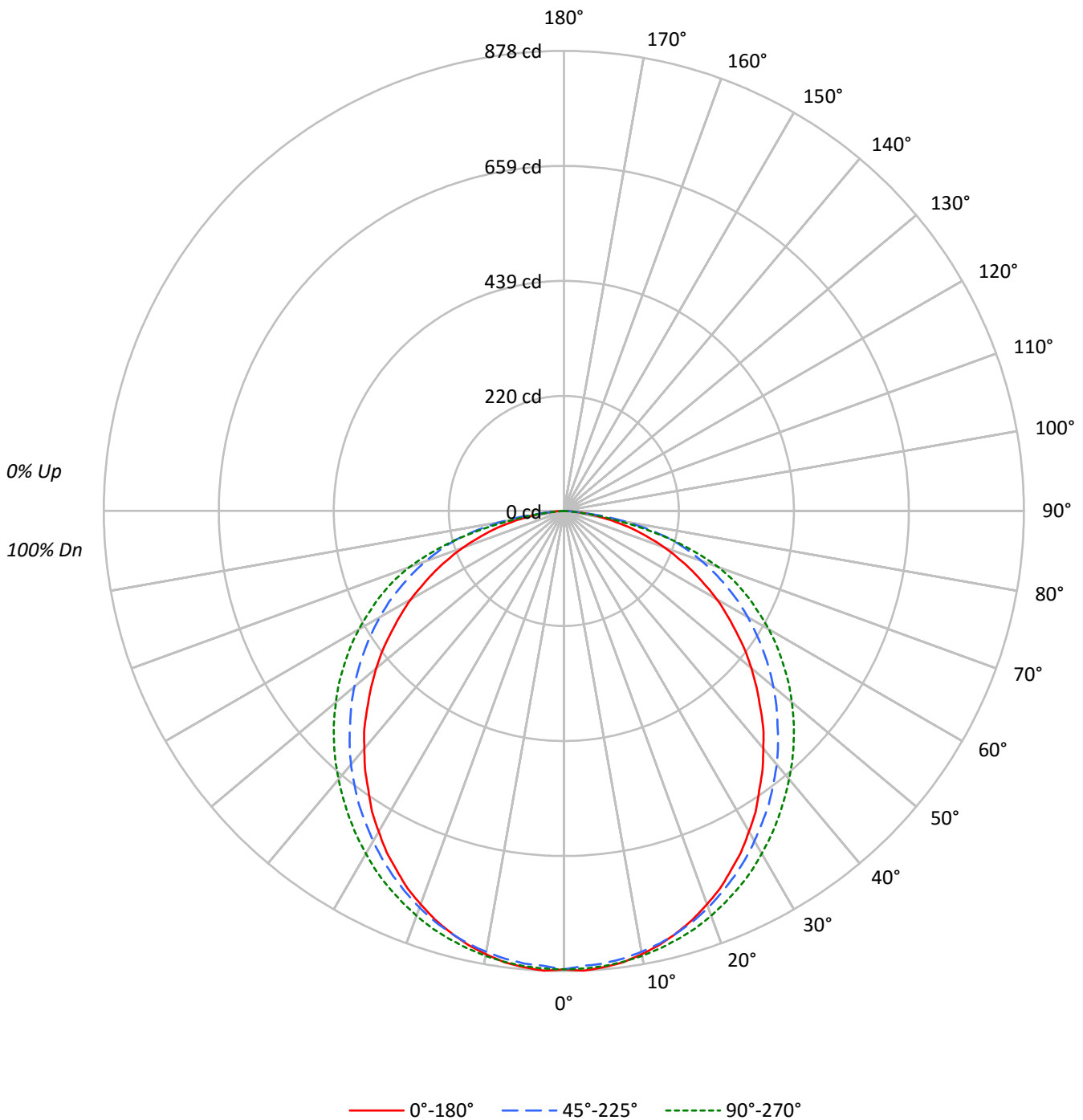
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2354	2354	2354
5°	2361	2341	2355
10°	2347	2334	2356
15°	2322	2323	2355
20°	2288	2307	2354
25°	2244	2284	2352
30°	2195	2261	2347
35°	2137	2241	2345
40°	2080	2219	2349
45°	2017	2195	2361
50°	1958	2185	2377
55°	1883	2178	2398
60°	1816	2182	2432
65°	1723	2188	2469
70°	1617	2205	2467
75°	1466	2225	2231
80°	1203	1922	1588
85°	892	908	367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	3.3
10°-20°	236.4	9.3
20°-30°	356.2	14.0
30°-40°	427.4	16.8
40°-50°	445.5	17.5
50°-60°	412.4	16.2
60°-70°	333.2	13.1
70°-80°	203.2	8.0
80°-90°	41.9	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°	675.4	26.6
0°-40°	1102.8	43.4
0°-60°	1960.7	77.2
0°-90°	2539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2539.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	874	872	867	873	872	83
15°	833	834	834	845	845	235
25°	756	760	769	789	792	348
35°	650	661	682	707	714	408
45°	530	546	577	609	620	410
55°	401	422	464	500	511	360
65°	271	297	344	378	388	268
75°	141	172	214	217	215	148
85°	29	43	29	16	12	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	874.7	874.7	874.7	874.7	874.7
2.5°	878.1	875.3	869.0	875.3	874.1
5°	874.1	871.9	866.8	873.0	871.9
7.5°	868.5	866.2	861.7	869.0	867.9
10°	858.8	857.7	854.3	862.8	862.2
12.5°	847.5	847.0	845.3	854.9	854.3
15°	833.4	833.9	833.9	845.3	845.3
17.5°	817.5	818.6	820.9	833.4	835.1
20°	798.8	801.1	805.6	819.8	822.0
22.5°	779.6	781.3	788.1	805.1	807.3
25°	755.8	760.3	769.4	788.6	792.0
27.5°	733.2	737.1	749.6	769.4	775.1
30°	706.5	712.8	727.5	749.0	755.2
32.5°	681.1	687.9	704.9	729.8	735.4
35°	650.5	660.7	682.2	707.1	713.9
37.5°	622.8	632.4	656.7	683.9	691.8
40°	592.2	604.1	631.8	660.7	668.6
42.5°	563.9	575.2	605.2	634.6	645.4
45°	529.9	545.8	576.9	609.2	620.5
47.5°	498.8	514.6	550.3	584.8	595.0
50°	467.6	484.6	522.0	557.7	567.8
52.5°	435.4	453.5	493.7	529.3	541.2
55°	401.4	422.3	464.2	500.5	511.2
57.5°	369.1	390.6	435.4	472.2	482.9
60°	337.4	359.5	405.4	440.5	451.8
62.5°	302.3	328.4	375.9	410.5	418.9
65°	270.6	297.2	343.6	378.2	387.8
67.5°	237.2	266.1	312.5	344.2	353.3
70°	205.5	235.5	280.2	309.7	313.6
72.5°	171.5	202.1	247.4	266.1	266.1
75°	141.0	172.1	214.0	217.4	214.6
77.5°	107.6	142.1	169.3	162.5	155.7
80°	77.6	111.5	124.0	111.5	102.5
82.5°	52.1	81.0	74.7	59.4	52.7
85°	28.9	43.0	29.4	16.4	11.9
87.5°	10.8	9.6	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)