

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: P307164

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-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: P307164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-HRP-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2865.0 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

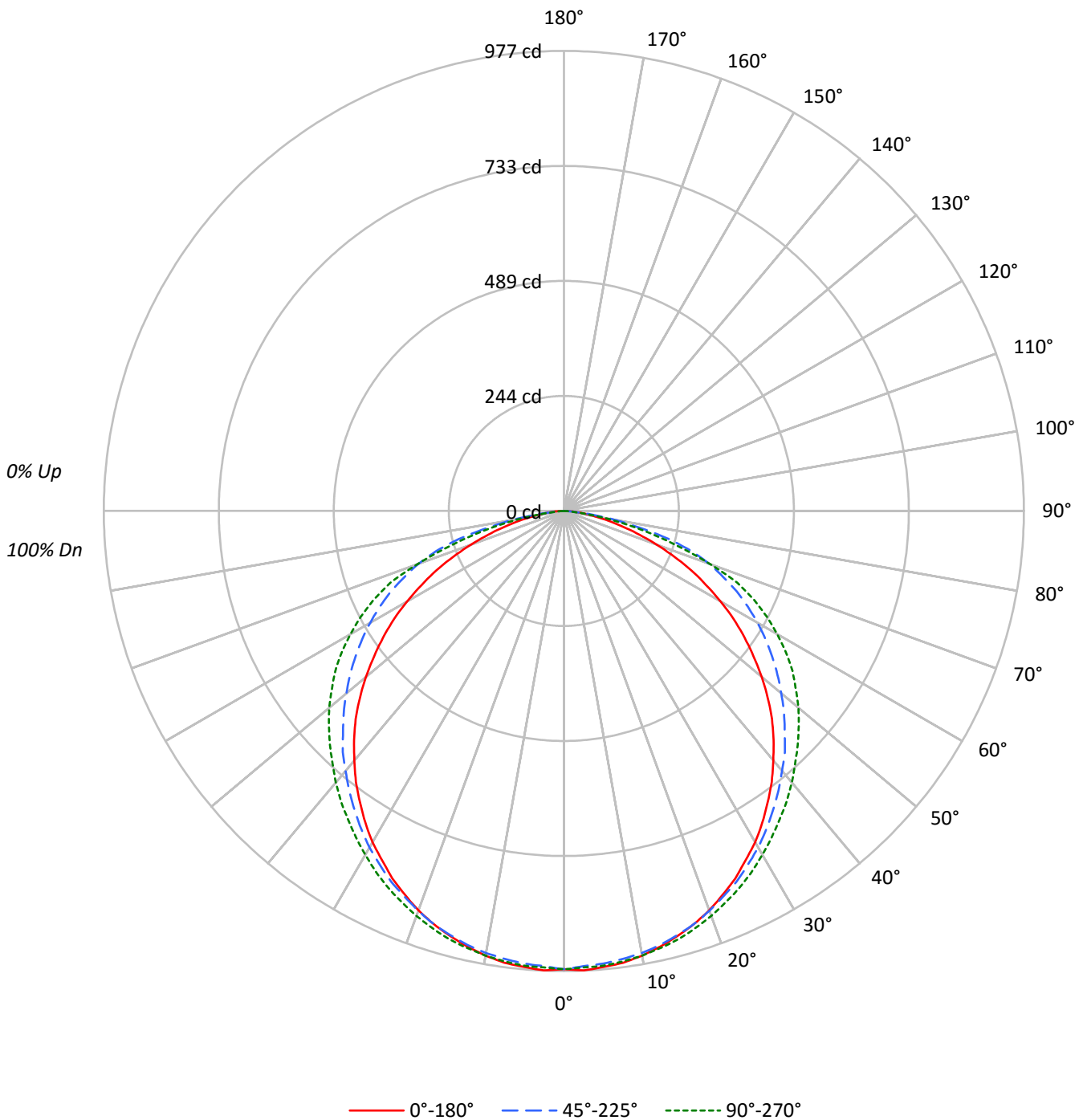
Input Watts (W): 33.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2618	2618	2618
5°	2626	2606	2619
10°	2619	2604	2619
15°	2603	2598	2623
20°	2585	2588	2621
25°	2557	2579	2621
30°	2525	2564	2620
35°	2480	2545	2625
40°	2431	2532	2646
45°	2379	2524	2674
50°	2297	2523	2723
55°	2198	2536	2781
60°	2066	2555	2817
65°	1904	2581	2833
70°	1659	2587	2608
75°	1367	2407	2108
80°	1075	1731	1410
85°	834	667	333



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.1	3.2
10°-20°	264.3	9.2
20°-30°	401.4	14.0
30°-40°	486.3	17.0
40°-50°	512.5	17.9
50°-60°	478.5	16.7
60°-70°	382.3	13.3
70°-80°	210.4	7.3
80°-90°	37.1	1.3
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°	757.8	26.5
0°-40°	1244.2	43.4
0°-60°	2235.1	78.0
0°-90°	2865.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2865.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	972	969	965	971	969	92
15°	934	934	932	941	941	264
25°	861	863	868	881	883	396
35°	755	762	775	795	799	472
45°	625	637	663	693	703	481
55°	468	492	540	578	593	418
65°	299	337	405	439	445	294
75°	132	188	232	208	203	142
85°	27	34	22	14	11	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	973.0	973.0	973.0	973.0	973.0
2.5°	976.6	973.9	967.6	973.0	970.3
5°	972.1	969.4	964.9	971.2	969.4
7.5°	967.6	964.0	959.5	966.7	964.9
10°	958.6	955.9	953.1	959.5	958.6
12.5°	947.7	946.8	944.1	951.3	950.4
15°	934.2	934.2	932.4	941.4	941.4
17.5°	919.8	918.9	919.8	929.7	928.8
20°	902.7	902.7	903.6	915.3	915.3
22.5°	882.0	882.9	885.6	900.0	899.1
25°	861.3	863.1	868.5	881.1	882.9
27.5°	836.0	840.5	846.8	862.2	864.0
30°	812.6	815.3	825.2	839.6	843.2
32.5°	784.7	790.1	800.9	817.1	821.6
35°	755.0	762.2	774.8	794.6	799.1
37.5°	725.2	731.5	748.6	769.4	777.5
40°	691.9	702.7	720.7	744.1	753.1
42.5°	659.5	670.3	694.6	718.9	727.0
45°	625.2	636.9	663.1	692.8	702.7
47.5°	587.4	600.9	634.2	665.8	676.6
50°	548.6	565.8	602.7	637.8	650.4
52.5°	508.1	529.7	572.1	609.0	620.7
55°	468.5	491.9	540.5	578.4	592.8
57.5°	427.9	453.2	508.1	551.3	559.5
60°	383.8	414.4	474.8	512.6	523.4
62.5°	340.5	375.7	440.5	476.6	485.6
65°	299.1	336.9	405.4	438.7	445.0
67.5°	254.1	299.1	366.7	397.3	399.1
70°	210.8	263.1	328.8	343.2	331.5
72.5°	168.5	224.3	284.7	273.0	263.1
75°	131.5	188.3	231.5	208.1	202.7
77.5°	97.3	154.1	165.8	153.2	143.2
80°	69.4	121.6	111.7	95.5	91.0
82.5°	47.7	76.6	61.3	47.7	41.4
85°	27.0	34.2	21.6	13.5	10.8
87.5°	11.7	8.1	4.5	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)