

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: P312092

Luminaire Tested: **14FCZ2-39-UNV-L83050-RDP-CA08-W2A-U-4000K**

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: P312092
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
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-L83050-RDP-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2505.0 lumens
Efficiency: N/A
Efficacy: 73.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

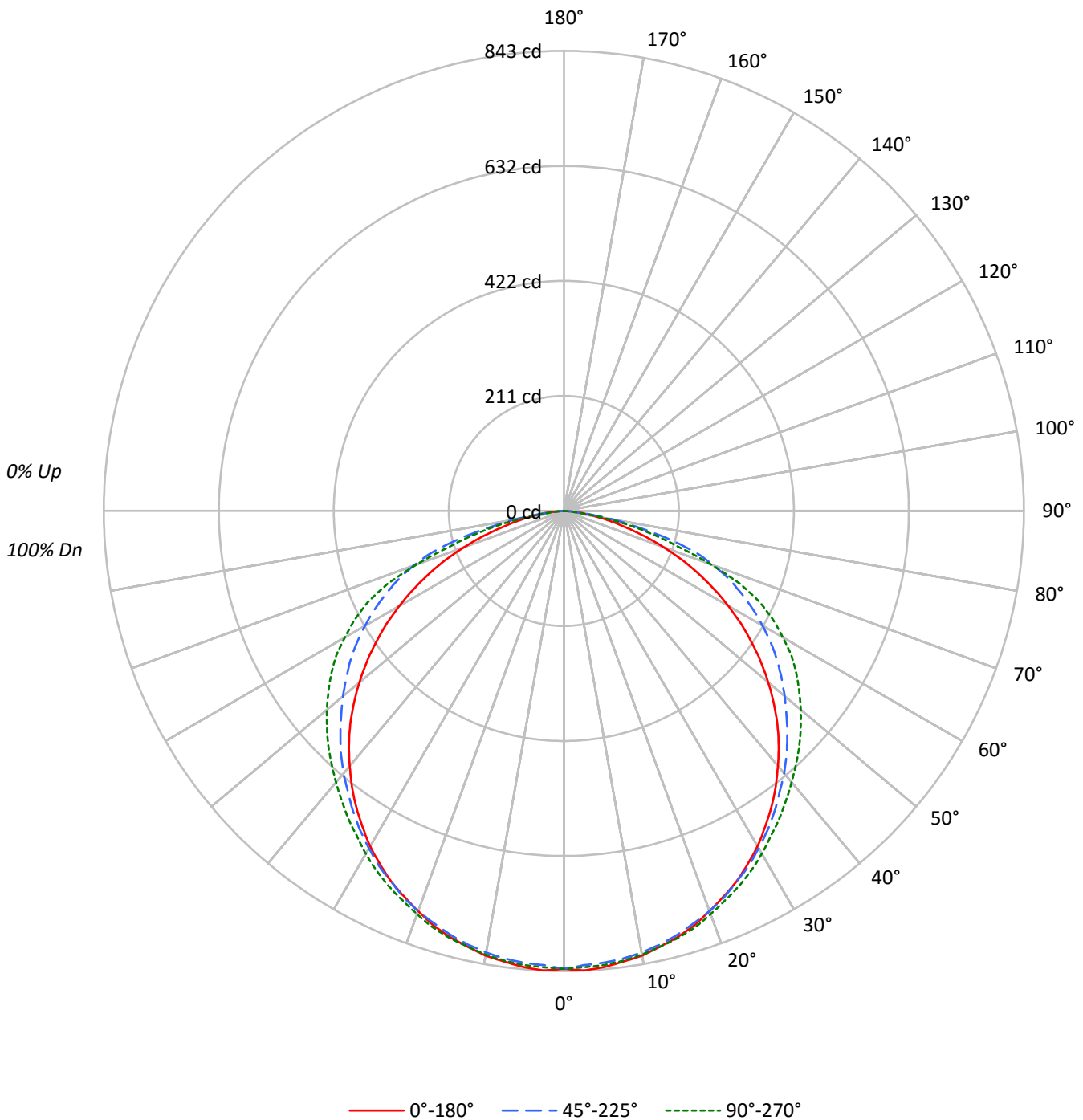
Input Watts (W): 34.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2258	2258	2258
5°	2266	2245	2256
10°	2261	2244	2255
15°	2250	2239	2256
20°	2235	2235	2251
25°	2224	2224	2253
30°	2206	2218	2255
35°	2178	2210	2261
40°	2144	2205	2281
45°	2106	2203	2322
50°	2047	2210	2374
55°	1973	2239	2441
60°	1873	2263	2495
65°	1731	2291	2528
70°	1539	2308	2262
75°	1240	2074	1810
80°	970	1455	1182
85°	664	423	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	3.2
10°-20°	227.8	9.1
20°-30°	346.9	13.8
30°-40°	422.5	16.9
40°-50°	448.3	17.9
50°-60°	423.1	16.9
60°-70°	341.6	13.6
70°-80°	185.3	7.4
80°-90°	30.0	1.2
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°	654.2	26.1
0°-40°	1076.7	43.0
0°-60°	1948.1	77.8
0°-90°	2505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	839	837	831	837	835	80
15°	808	806	804	810	810	228
25°	749	747	749	757	759	345
35°	663	667	673	686	688	415
45°	554	561	579	600	610	426
55°	420	438	477	508	520	376
65°	272	305	360	389	397	269
75°	119	174	200	180	174	130
85°	22	24	14	12	10	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	839.0	839.0	839.0	839.0	839.0
2.5°	842.9	839.0	833.1	839.0	837.0
5°	839.0	837.0	831.2	837.0	835.1
7.5°	833.1	833.1	827.3	831.2	831.2
10°	827.3	825.3	821.4	827.3	825.3
12.5°	817.5	815.5	813.6	819.4	817.5
15°	807.7	805.7	803.8	809.7	809.7
17.5°	796.0	794.0	792.1	799.9	799.9
20°	780.3	780.3	780.3	788.1	786.2
22.5°	764.7	764.7	766.6	774.5	772.5
25°	749.0	747.1	749.0	756.8	758.8
27.5°	729.5	731.4	733.4	741.2	743.2
30°	709.9	711.9	713.8	723.6	725.6
32.5°	686.4	690.4	694.3	706.0	706.0
35°	663.0	666.9	672.8	686.4	688.4
37.5°	637.6	641.5	649.3	664.9	668.8
40°	610.2	616.0	627.8	643.4	649.3
42.5°	582.8	590.6	604.3	621.9	629.7
45°	553.5	561.3	578.9	600.4	610.2
47.5°	522.2	531.9	553.5	580.8	588.7
50°	488.9	502.6	528.0	557.4	567.1
52.5°	455.7	471.3	502.6	533.9	543.7
55°	420.5	438.1	477.2	508.5	520.2
57.5°	385.3	404.8	449.8	483.1	494.8
60°	348.1	371.6	420.5	453.7	463.5
62.5°	311.0	338.3	391.1	424.4	432.2
65°	271.8	305.1	359.8	389.2	397.0
67.5°	234.7	273.8	328.6	350.1	350.1
70°	195.6	238.6	293.4	299.2	287.5
72.5°	156.5	205.3	254.2	232.7	222.9
75°	119.3	174.1	199.5	179.9	174.1
77.5°	90.0	140.8	140.8	129.1	125.2
80°	62.6	107.6	93.9	82.1	76.3
82.5°	41.1	60.6	48.9	39.1	33.2
85°	21.5	23.5	13.7	11.7	9.8
87.5°	7.8	3.9	2.0	3.9	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)