

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: P307162

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-CA08-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: P307162
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-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 2754.0 lumens
Efficiency: N/A
Efficacy: 82.2 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

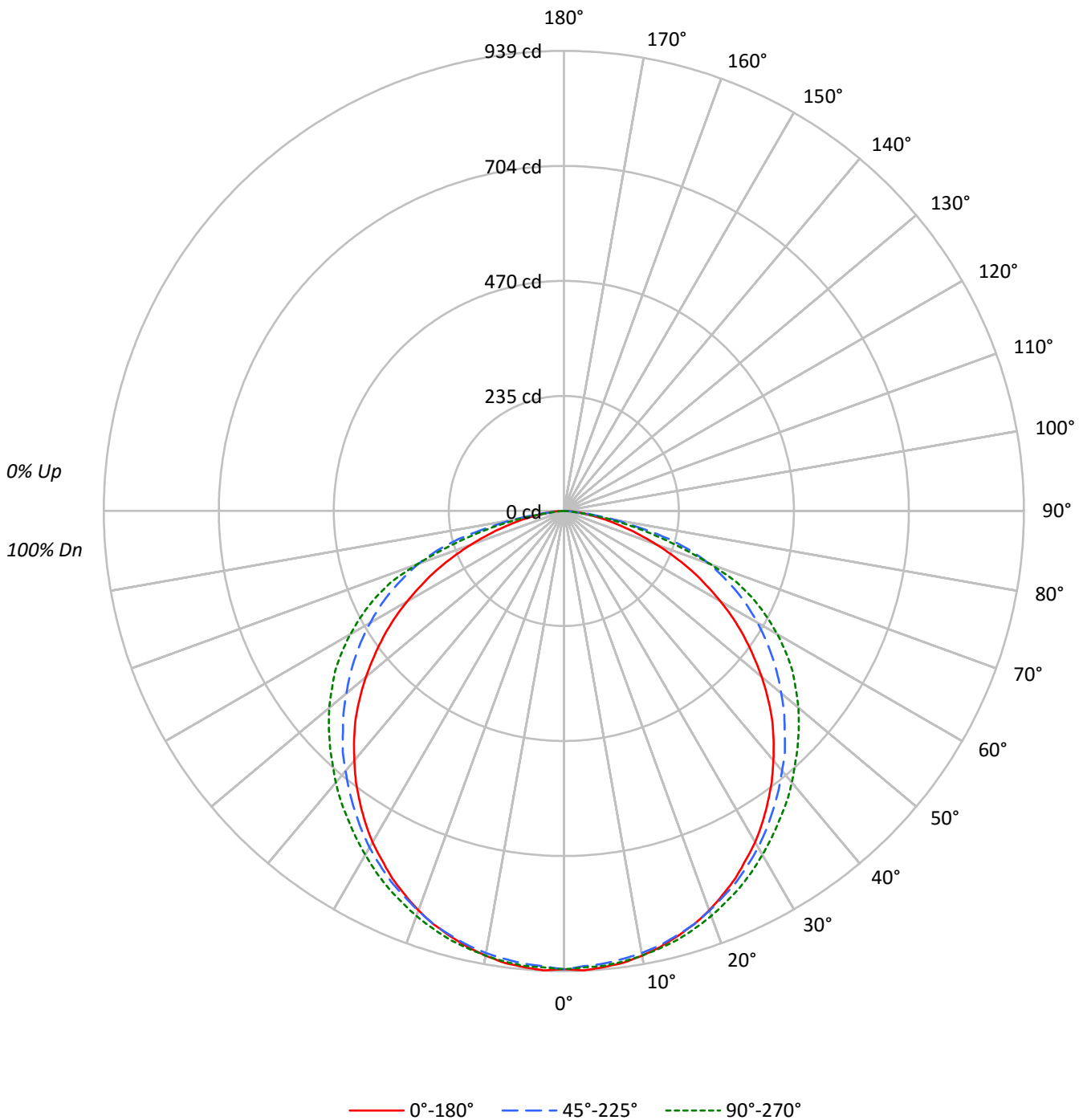
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2517	2517	2517
5°	2524	2505	2517
10°	2518	2504	2518
15°	2502	2497	2521
20°	2485	2487	2519
25°	2458	2479	2520
30°	2427	2465	2519
35°	2384	2447	2523
40°	2336	2434	2543
45°	2287	2426	2571
50°	2208	2425	2617
55°	2113	2438	2673
60°	1985	2456	2708
65°	1831	2481	2724
70°	1594	2487	2507
75°	1314	2314	2025
80°	1034	1664	1356
85°	803	642	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	3.2
10°-20°	254.1	9.2
20°-30°	385.8	14.0
30°-40°	467.5	17.0
40°-50°	492.6	17.9
50°-60°	459.9	16.7
60°-70°	367.5	13.3
70°-80°	202.2	7.3
80°-90°	35.7	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°	728.5	26.5
0°-40°	1196.0	43.4
0°-60°	2148.5	78.0
0°-90°	2754.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2754.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	934	932	928	934	932	89
15°	898	898	896	905	905	253
25°	828	830	835	847	849	381
35°	726	733	745	764	768	454
45°	601	612	637	666	676	462
55°	450	473	520	556	570	402
65°	288	324	390	422	428	283
75°	126	181	223	200	195	136
85°	26	33	21	13	10	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	935.3	935.3	935.3	935.3	935.3
2.5°	938.7	936.1	930.1	935.3	932.7
5°	934.4	931.8	927.5	933.5	931.8
7.5°	930.1	926.6	922.3	929.2	927.5
10°	921.4	918.8	916.2	922.3	921.4
12.5°	911.0	910.2	907.6	914.5	913.6
15°	898.0	898.0	896.3	905.0	905.0
17.5°	884.2	883.3	884.2	893.7	892.8
20°	867.7	867.7	868.6	879.8	879.8
22.5°	847.8	848.7	851.3	865.1	864.3
25°	827.9	829.6	834.8	846.9	848.7
27.5°	803.6	808.0	814.0	828.8	830.5
30°	781.1	783.7	793.2	807.1	810.6
32.5°	754.3	759.5	769.9	785.5	789.8
35°	725.7	732.6	744.8	763.8	768.1
37.5°	697.1	703.2	719.6	739.6	747.4
40°	665.1	675.5	692.8	715.3	724.0
42.5°	633.9	644.3	667.7	691.1	698.9
45°	601.0	612.3	637.4	665.9	675.5
47.5°	564.6	577.6	609.7	640.0	650.4
50°	527.4	543.8	579.3	613.1	625.2
52.5°	488.4	509.2	549.9	585.4	596.7
55°	450.3	472.8	519.6	556.0	569.8
57.5°	411.3	435.6	488.4	530.0	537.8
60°	368.9	398.4	456.4	492.7	503.1
62.5°	327.3	361.1	423.5	458.1	466.8
65°	287.5	323.9	389.7	421.7	427.8
67.5°	244.2	287.5	352.5	381.9	383.6
70°	202.6	252.9	316.1	329.9	318.7
72.5°	161.9	215.6	273.7	262.4	252.9
75°	126.4	181.0	222.6	200.0	194.8
77.5°	93.5	148.1	159.3	147.2	137.7
80°	66.7	116.9	107.4	91.8	87.5
82.5°	45.9	73.6	58.9	45.9	39.8
85°	26.0	32.9	20.8	13.0	10.4
87.5°	11.3	7.8	4.3	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)