

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: P308243

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-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: P308243
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3000K 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: 2751.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

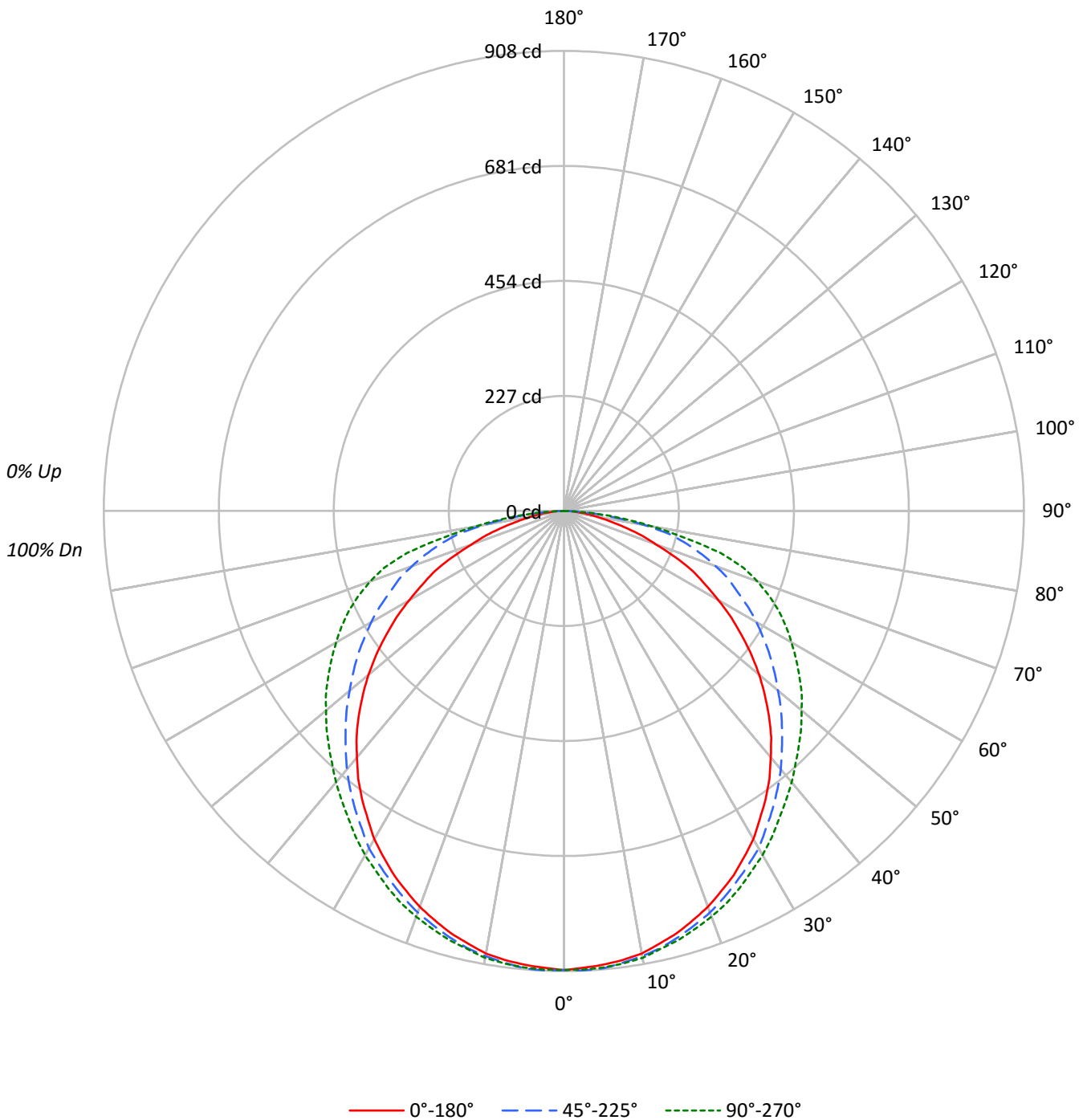
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2438	2438	2438
5°	2428	2447	2442
10°	2423	2437	2447
15°	2403	2427	2442
20°	2381	2415	2440
25°	2355	2396	2437
30°	2324	2389	2437
35°	2281	2360	2434
40°	2231	2341	2457
45°	2179	2318	2496
50°	2107	2310	2565
55°	2011	2328	2662
60°	1896	2363	2793
65°	1790	2409	2984
70°	1530	2512	3195
75°	1281	2616	3320
80°	1049	2528	2769
85°	911	1874	2035



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.9	3.1
10°-20°	245.6	8.9
20°-30°	372.2	13.5
30°-40°	449.4	16.3
40°-50°	472.3	17.2
50°-60°	444.3	16.2
60°-70°	370.5	13.5
70°-80°	245.5	8.9
80°-90°	65.4	2.4
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°	703.6	25.6
0°-40°	1153.1	41.9
0°-60°	2069.6	75.2
0°-90°	2751.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2751.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	899	901	906	906	904	85
15°	862	866	871	875	876	243
25°	793	798	807	817	821	365
35°	694	701	718	734	741	434
45°	573	581	609	640	656	441
55°	429	448	496	547	568	383
65°	281	305	378	441	469	274
75°	123	172	252	304	319	134
85°	30	45	61	66	66	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	905.9	905.9	905.9	905.9	905.9
2.5°	902.4	904.1	907.6	907.6	905.9
5°	898.9	900.7	905.9	905.9	904.1
7.5°	893.7	895.5	898.9	902.4	900.7
10°	886.8	888.5	892.0	895.5	895.5
12.5°	874.6	876.4	883.3	885.0	885.0
15°	862.5	866.0	871.2	874.6	876.4
17.5°	846.9	850.3	857.3	864.2	864.2
20°	831.3	834.7	843.4	850.3	852.1
22.5°	812.2	817.4	826.0	834.7	838.2
25°	793.1	798.3	807.0	817.4	820.8
27.5°	770.5	775.7	787.9	800.0	801.7
30°	748.0	753.2	768.8	779.2	784.4
32.5°	720.2	727.1	742.7	758.4	763.6
35°	694.2	701.1	718.5	734.1	741.0
37.5°	666.4	673.3	692.4	711.5	720.2
40°	635.2	643.8	666.4	687.2	699.4
42.5°	605.7	614.3	636.9	664.7	676.8
45°	572.7	581.4	609.1	640.4	656.0
47.5°	538.0	548.4	581.4	619.5	635.2
50°	503.3	515.4	551.9	595.2	612.6
52.5°	466.8	482.4	524.1	570.9	591.8
55°	428.6	447.7	496.3	546.6	567.5
57.5°	392.2	409.6	466.8	520.6	543.2
60°	352.3	374.8	439.1	494.6	518.9
62.5°	314.1	338.4	409.6	468.6	494.6
65°	281.1	305.4	378.3	440.8	468.6
67.5°	237.7	270.7	352.3	411.3	439.1
70°	194.4	239.5	319.3	380.1	406.1
72.5°	161.4	204.8	286.3	347.1	371.4
75°	123.2	171.8	251.6	303.7	319.3
77.5°	92.0	142.3	215.2	241.2	243.0
80°	67.7	109.3	163.1	171.8	178.7
82.5°	46.9	76.4	105.9	116.3	119.7
85°	29.5	45.1	60.7	65.9	65.9
87.5°	15.6	17.4	20.8	20.8	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)