

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: P308242

Luminaire Tested: **22FCZ2-39HE-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: P308242
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-3500K
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: 2691.0 lumens
Efficiency: N/A
Efficacy: 82.5 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

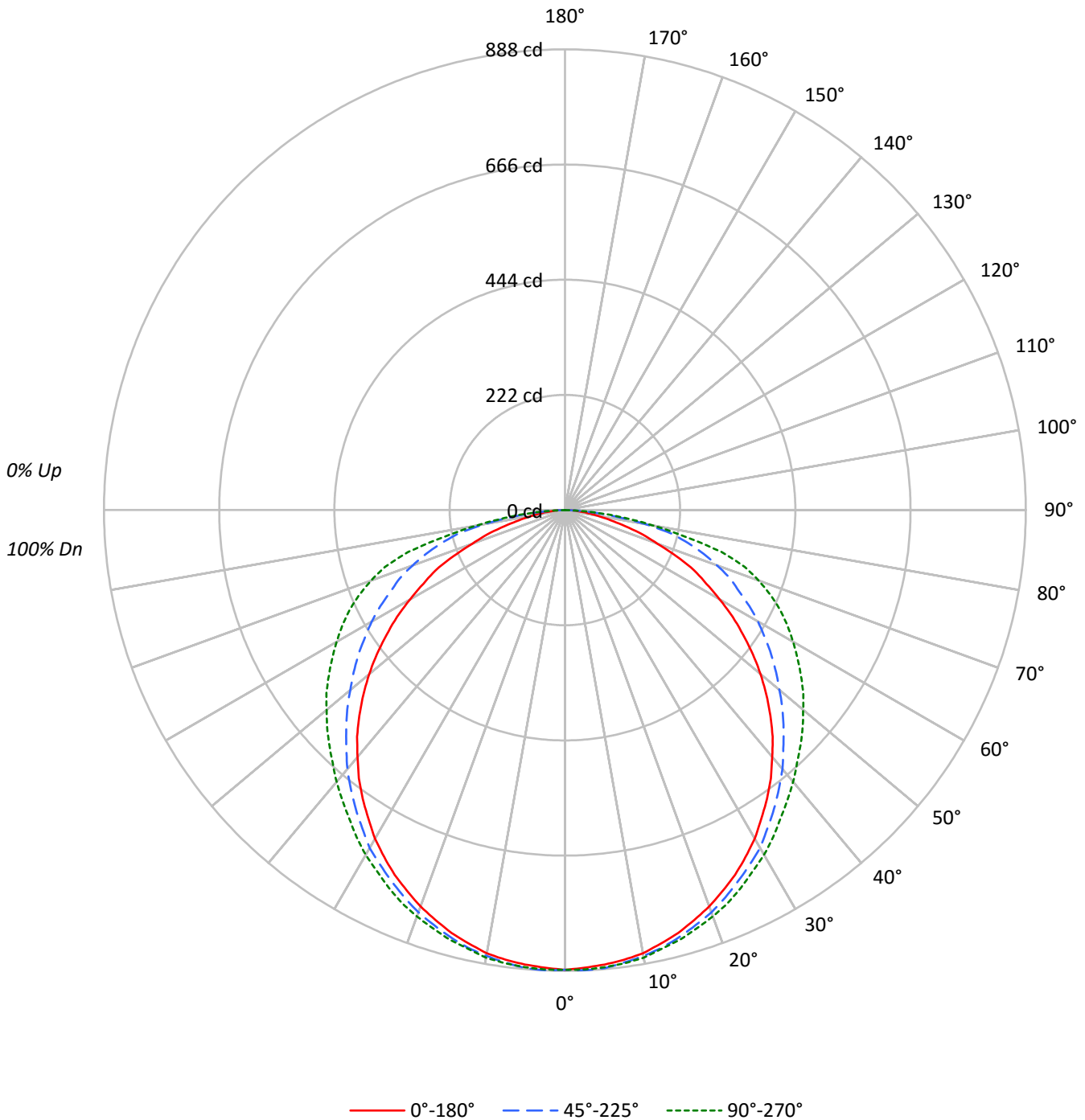
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2384	2384	2384
5°	2375	2394	2389
10°	2370	2384	2393
15°	2350	2374	2388
20°	2328	2363	2387
25°	2303	2344	2384
30°	2273	2337	2384
35°	2231	2309	2381
40°	2183	2290	2403
45°	2132	2267	2442
50°	2061	2260	2509
55°	1967	2278	2604
60°	1855	2312	2732
65°	1751	2357	2918
70°	1496	2457	3125
75°	1253	2559	3247
80°	1026	2473	2709
85°	892	1834	1991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	3.1
10°-20°	240.2	8.9
20°-30°	364.1	13.5
30°-40°	439.6	16.3
40°-50°	461.9	17.2
50°-60°	434.6	16.2
60°-70°	362.4	13.5
70°-80°	240.1	8.9
80°-90°	64.0	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°	688.3	25.6
0°-40°	1127.9	41.9
0°-60°	2024.5	75.2
0°-90°	2691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	879	881	886	886	884	84
15°	844	847	852	856	857	238
25°	776	781	789	800	803	357
35°	679	686	703	718	725	425
45°	560	569	596	626	642	431
55°	419	438	486	535	555	375
65°	275	299	370	431	458	268
75°	120	168	246	297	312	131
85°	29	44	59	64	64	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	886.1	886.1	886.1	886.1	886.1
2.5°	882.7	884.4	887.8	887.8	886.1
5°	879.3	881.0	886.1	886.1	884.4
7.5°	874.2	875.9	879.3	882.7	881.0
10°	867.4	869.1	872.5	875.9	875.9
12.5°	855.6	857.3	864.0	865.7	865.7
15°	843.7	847.1	852.2	855.6	857.3
17.5°	828.4	831.8	838.6	845.4	845.4
20°	813.1	816.5	825.0	831.8	833.5
22.5°	794.4	799.5	808.0	816.5	819.9
25°	775.8	780.9	789.4	799.5	802.9
27.5°	753.7	758.8	770.7	782.6	784.3
30°	731.6	736.7	752.0	762.2	767.3
32.5°	704.5	711.3	726.5	741.8	746.9
35°	679.0	685.8	702.8	718.1	724.8
37.5°	651.9	658.6	677.3	696.0	704.5
40°	621.3	629.8	651.9	672.2	684.1
42.5°	592.4	600.9	623.0	650.2	662.0
45°	560.2	568.7	595.8	626.4	641.7
47.5°	526.2	536.4	568.7	606.0	621.3
50°	492.3	504.2	539.8	582.3	599.2
52.5°	456.6	471.9	512.7	558.5	578.9
55°	419.3	438.0	485.5	534.7	555.1
57.5°	383.6	400.6	456.6	509.3	531.3
60°	344.6	366.7	429.5	483.8	507.6
62.5°	307.3	331.0	400.6	458.3	483.8
65°	275.0	298.8	370.1	431.2	458.3
67.5°	232.6	264.8	344.6	402.3	429.5
70°	190.1	234.3	312.3	371.8	397.2
72.5°	157.9	200.3	280.1	339.5	363.3
75°	120.5	168.1	246.1	297.1	312.3
77.5°	90.0	139.2	210.5	236.0	237.7
80°	66.2	106.9	159.6	168.1	174.8
82.5°	45.8	74.7	103.5	113.7	117.1
85°	28.9	44.1	59.4	64.5	64.5
87.5°	15.3	17.0	20.4	20.4	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)