

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: P312545

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-HRP-CA125-W2A-U-3000K**

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: P312545
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-L83050-HRP-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 2689.0 lumens
Efficiency: N/A
Efficacy: 83.3 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

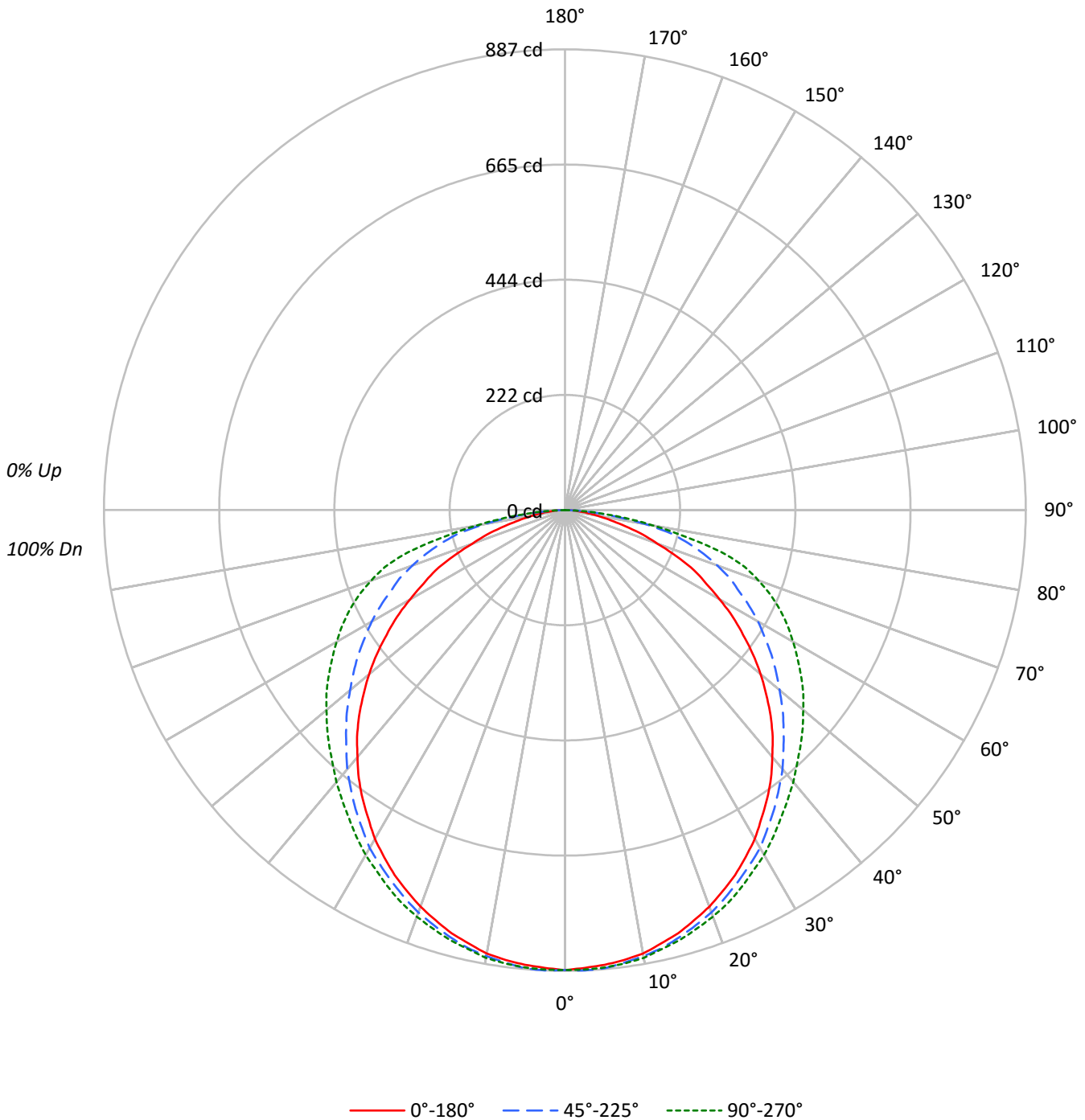
Input Watts (W): 32.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2383	2383	2383
5°	2374	2392	2387
10°	2369	2382	2392
15°	2349	2372	2386
20°	2327	2361	2385
25°	2302	2342	2382
30°	2272	2335	2382
35°	2229	2307	2379
40°	2181	2288	2401
45°	2130	2266	2440
50°	2059	2258	2507
55°	1966	2276	2602
60°	1853	2310	2730
65°	1750	2355	2916
70°	1495	2456	3123
75°	1252	2558	3245
80°	1026	2472	2707
85°	889	1834	1991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	3.1
10°-20°	240.1	8.9
20°-30°	363.8	13.5
30°-40°	439.3	16.3
40°-50°	461.6	17.2
50°-60°	434.3	16.2
60°-70°	362.1	13.5
70°-80°	239.9	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°	687.8	25.6
0°-40°	1127.1	41.9
0°-60°	2023.0	75.2
0°-90°	2689.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2689.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	879	880	886	886	884	84
15°	843	846	852	855	857	238
25°	775	780	789	799	802	357
35°	678	685	702	718	724	424
45°	560	568	595	626	641	431
55°	419	438	485	534	555	375
65°	275	298	370	431	458	267
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°	885.5	885.5	885.5	885.5	885.5
2.5°	882.1	883.8	887.2	887.2	885.5
5°	878.7	880.4	885.5	885.5	883.8
7.5°	873.6	875.3	878.7	882.1	880.4
10°	866.8	868.5	871.9	875.3	875.3
12.5°	854.9	856.6	863.4	865.1	865.1
15°	843.1	846.4	851.5	854.9	856.6
17.5°	827.8	831.2	838.0	844.7	844.7
20°	812.5	815.9	824.4	831.2	832.9
22.5°	793.9	798.9	807.4	815.9	819.3
25°	775.2	780.3	788.8	798.9	802.3
27.5°	753.1	758.2	770.1	782.0	783.7
30°	731.1	736.2	751.5	761.6	766.7
32.5°	704.0	710.7	726.0	741.3	746.4
35°	678.5	685.3	702.3	717.5	724.3
37.5°	651.4	658.2	676.8	695.5	704.0
40°	620.8	629.3	651.4	671.7	683.6
42.5°	592.0	600.5	622.5	649.7	661.5
45°	559.8	568.3	595.4	625.9	641.2
47.5°	525.8	536.0	568.3	605.6	620.8
50°	491.9	503.8	539.4	581.8	598.8
52.5°	456.3	471.6	512.3	558.1	578.4
55°	419.0	437.6	485.1	534.3	554.7
57.5°	383.4	400.3	456.3	508.9	530.9
60°	344.3	366.4	429.2	483.4	507.2
62.5°	307.0	330.8	400.3	458.0	483.4
65°	274.8	298.5	369.8	430.9	458.0
67.5°	232.4	264.6	344.3	402.0	429.2
70°	190.0	234.1	312.1	371.5	396.9
72.5°	157.8	200.2	279.9	339.3	363.0
75°	120.4	167.9	246.0	296.8	312.1
77.5°	89.9	139.1	210.3	235.8	237.5
80°	66.2	106.9	159.5	167.9	174.7
82.5°	45.8	74.6	103.5	113.7	117.0
85°	28.8	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)