

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: P308249

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CA125-W2A-U-2700K**

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: P308249
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-CA125-W2A-U-2700K
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: 2520.0 lumens
Efficiency: N/A
Efficacy: 77.8 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

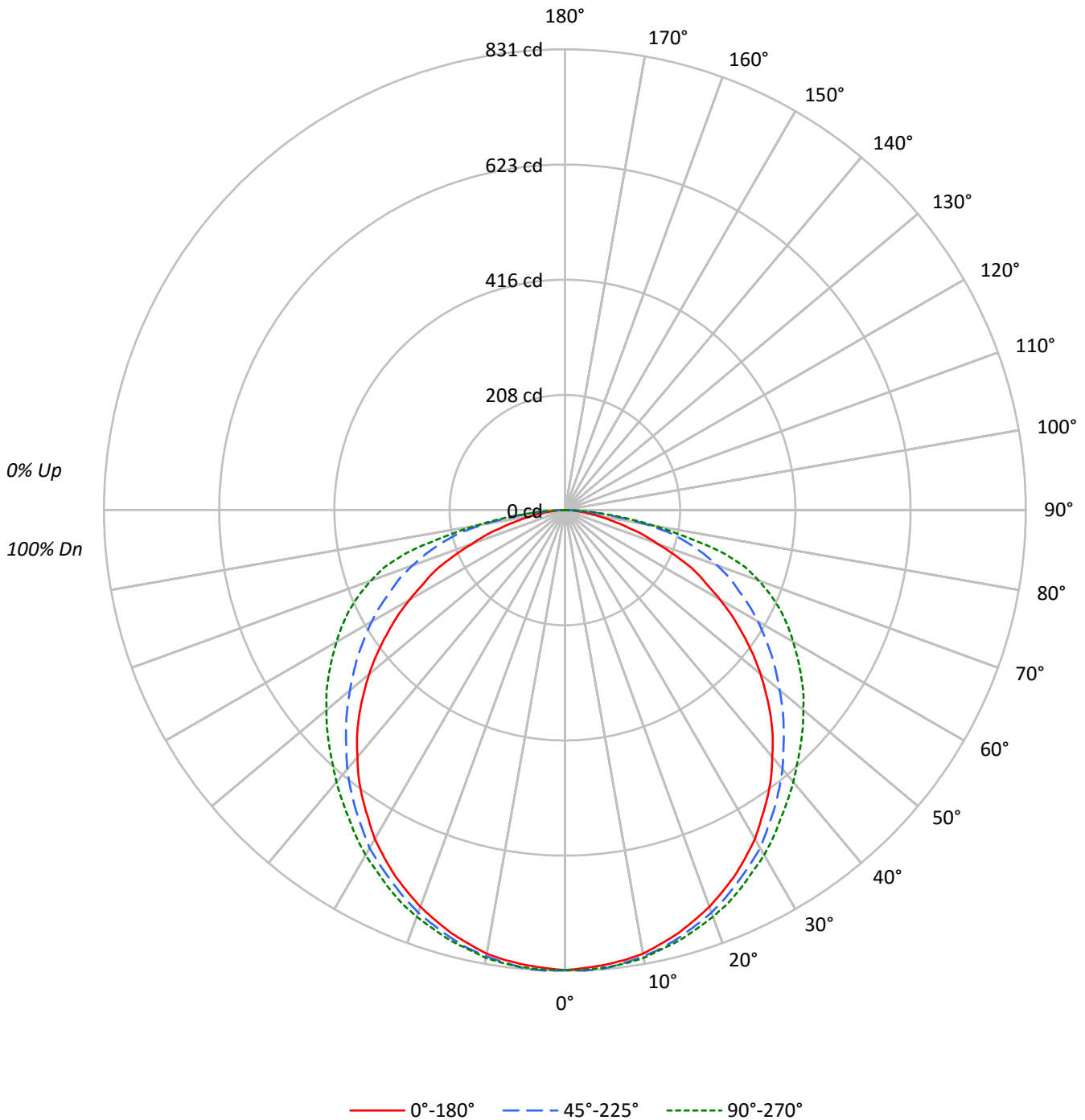
Input Watts (W): 32.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2233	2233	2233
5°	2224	2242	2237
10°	2220	2233	2241
15°	2201	2223	2237
20°	2181	2212	2235
25°	2157	2195	2233
30°	2129	2188	2233
35°	2089	2162	2230
40°	2044	2144	2250
45°	1996	2124	2287
50°	1930	2116	2349
55°	1842	2133	2439
60°	1737	2165	2558
65°	1640	2206	2733
70°	1400	2301	2927
75°	1174	2397	3041
80°	961	2315	2537
85°	834	1717	1865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	3.1
10°-20°	225.0	8.9
20°-30°	340.9	13.5
30°-40°	411.7	16.3
40°-50°	432.6	17.2
50°-60°	407.0	16.2
60°-70°	339.4	13.5
70°-80°	224.9	8.9
80°-90°	59.9	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°	644.5	25.6
0°-40°	1056.2	41.9
0°-60°	1895.8	75.2
0°-90°	2520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	823	825	830	830	828	78
15°	790	793	798	801	803	223
25°	726	731	739	749	752	334
35°	636	642	658	672	679	398
45°	525	532	558	587	601	404
55°	393	410	455	501	520	351
65°	258	280	346	404	429	251
75°	113	157	230	278	292	123
85°	27	41	56	60	60	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	829.8	829.8	829.8	829.8	829.8
2.5°	826.6	828.2	831.4	831.4	829.8
5°	823.4	825.0	829.8	829.8	828.2
7.5°	818.7	820.3	823.4	826.6	825.0
10°	812.3	813.9	817.1	820.3	820.3
12.5°	801.2	802.8	809.1	810.7	810.7
15°	790.1	793.2	798.0	801.2	802.8
17.5°	775.8	778.9	785.3	791.7	791.7
20°	761.5	764.6	772.6	778.9	780.5
22.5°	744.0	748.7	756.7	764.6	767.8
25°	726.5	731.2	739.2	748.7	751.9
27.5°	705.8	710.6	721.7	732.8	734.4
30°	685.1	689.9	704.2	713.8	718.5
32.5°	659.7	666.1	680.4	694.7	699.5
35°	635.9	642.2	658.1	672.4	678.8
37.5°	610.4	616.8	634.3	651.8	659.7
40°	581.8	589.8	610.4	629.5	640.6
42.5°	554.8	562.7	583.4	608.8	620.0
45°	524.6	532.5	558.0	586.6	600.9
47.5°	492.8	502.3	532.5	567.5	581.8
50°	461.0	472.1	505.5	545.3	561.2
52.5°	427.6	441.9	480.1	523.0	542.1
55°	392.6	410.1	454.6	500.7	519.8
57.5°	359.3	375.2	427.6	476.9	497.6
60°	322.7	343.4	402.2	453.1	475.3
62.5°	287.7	310.0	375.2	429.2	453.1
65°	257.5	279.8	346.5	403.8	429.2
67.5°	217.8	248.0	322.7	376.8	402.2
70°	178.0	219.4	292.5	348.1	372.0
72.5°	147.8	187.6	262.3	317.9	340.2
75°	112.9	157.4	230.5	278.2	292.5
77.5°	84.3	130.4	197.1	221.0	222.6
80°	62.0	100.1	149.4	157.4	163.7
82.5°	42.9	69.9	97.0	106.5	109.7
85°	27.0	41.3	55.6	60.4	60.4
87.5°	14.3	15.9	19.1	19.1	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)