

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: P308716

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP125-W2A-U-6500K**

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: P308716
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-29HE-UNV-L82765-CP125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 2622.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

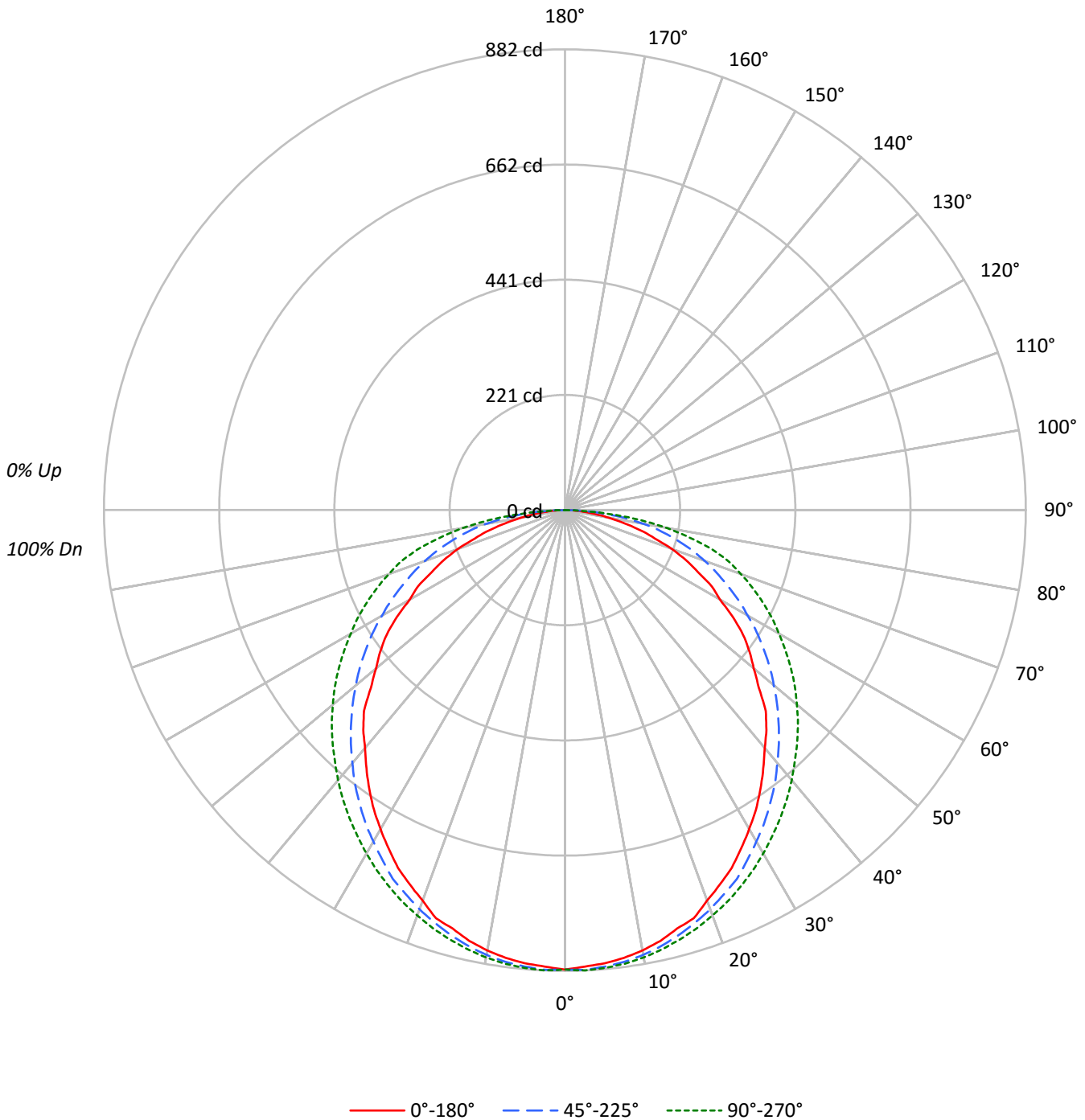
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2367	2367	2367
5°	2353	2370	2376
10°	2339	2363	2376
15°	2311	2346	2370
20°	2278	2329	2365
25°	2243	2314	2362
30°	2192	2277	2359
35°	2144	2251	2362
40°	2089	2222	2372
45°	2068	2202	2393
50°	1976	2185	2427
55°	1955	2178	2479
60°	1844	2175	2546
65°	1790	2189	2661
70°	1718	2242	2824
75°	1566	2309	3040
80°	1342	2393	3073
85°	1084	2285	2634



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.2	3.2
10°-20°	237.5	9.1
20°-30°	357.4	13.6
30°-40°	428.9	16.4
40°-50°	448.3	17.1
50°-60°	417.8	15.9
60°-70°	342.7	13.1
70°-80°	230.9	8.8
80°-90°	75.2	2.9
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°	678.1	25.9
0°-40°	1107.1	42.2
0°-60°	1973.2	75.3
0°-90°	2622.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2622.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	880	880	880	880	880	
5°	871	873	877	878	880	83
15°	830	834	842	850	851	234
25°	756	760	779	791	796	347
35°	653	661	685	709	719	408
45°	543	547	578	614	629	415
55°	417	424	464	508	528	369
65°	281	294	344	394	418	280
75°	151	167	222	272	292	158
85°	35	50	74	87	85	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	879.7	879.7	879.7	879.7	879.7
2.5°	874.7	877.2	881.0	882.2	882.2
5°	870.9	873.4	877.2	878.4	879.7
7.5°	864.6	867.2	872.2	874.7	875.9
10°	855.9	858.4	864.6	868.4	869.7
12.5°	844.6	847.1	854.6	859.6	860.9
15°	829.5	834.5	842.1	849.6	850.8
17.5°	819.5	818.2	828.3	837.0	839.5
20°	795.6	801.9	813.2	823.2	825.7
22.5°	775.5	780.6	795.6	806.9	811.9
25°	755.5	760.5	779.3	790.6	795.6
27.5°	730.4	737.9	755.5	771.8	778.1
30°	705.3	712.8	732.9	751.7	759.2
32.5°	680.2	689.0	710.3	730.4	739.2
35°	652.6	661.3	685.2	709.0	719.1
37.5°	623.7	635.0	660.1	686.4	697.7
40°	594.8	606.1	632.5	662.6	675.2
42.5°	571.0	576.0	606.1	638.8	651.3
45°	543.4	547.1	578.5	613.7	628.7
47.5°	503.2	517.0	550.9	589.8	604.9
50°	471.9	486.9	522.0	563.5	579.8
52.5°	445.5	455.5	494.4	535.9	554.7
55°	416.6	424.2	464.3	508.2	528.3
57.5°	381.5	395.3	435.5	480.6	500.7
60°	342.6	360.2	404.1	453.0	473.1
62.5°	317.5	327.5	375.2	424.2	446.8
65°	281.1	293.7	343.8	394.0	417.9
67.5°	251.0	263.5	315.0	365.2	389.0
70°	218.4	230.9	284.9	335.1	358.9
72.5°	180.7	198.3	254.8	304.9	330.0
75°	150.6	166.9	222.1	272.3	292.4
77.5°	116.7	138.0	189.5	230.9	246.0
80°	86.6	107.9	154.4	184.5	198.3
82.5°	59.0	80.3	115.5	138.0	145.6
85°	35.1	50.2	74.0	86.6	85.3
87.5°	16.3	21.3	30.1	30.1	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)