

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: P308710

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP125-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: P308710
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-3500K
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: 2450.0 lumens
Efficiency: N/A
Efficacy: 108.9 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

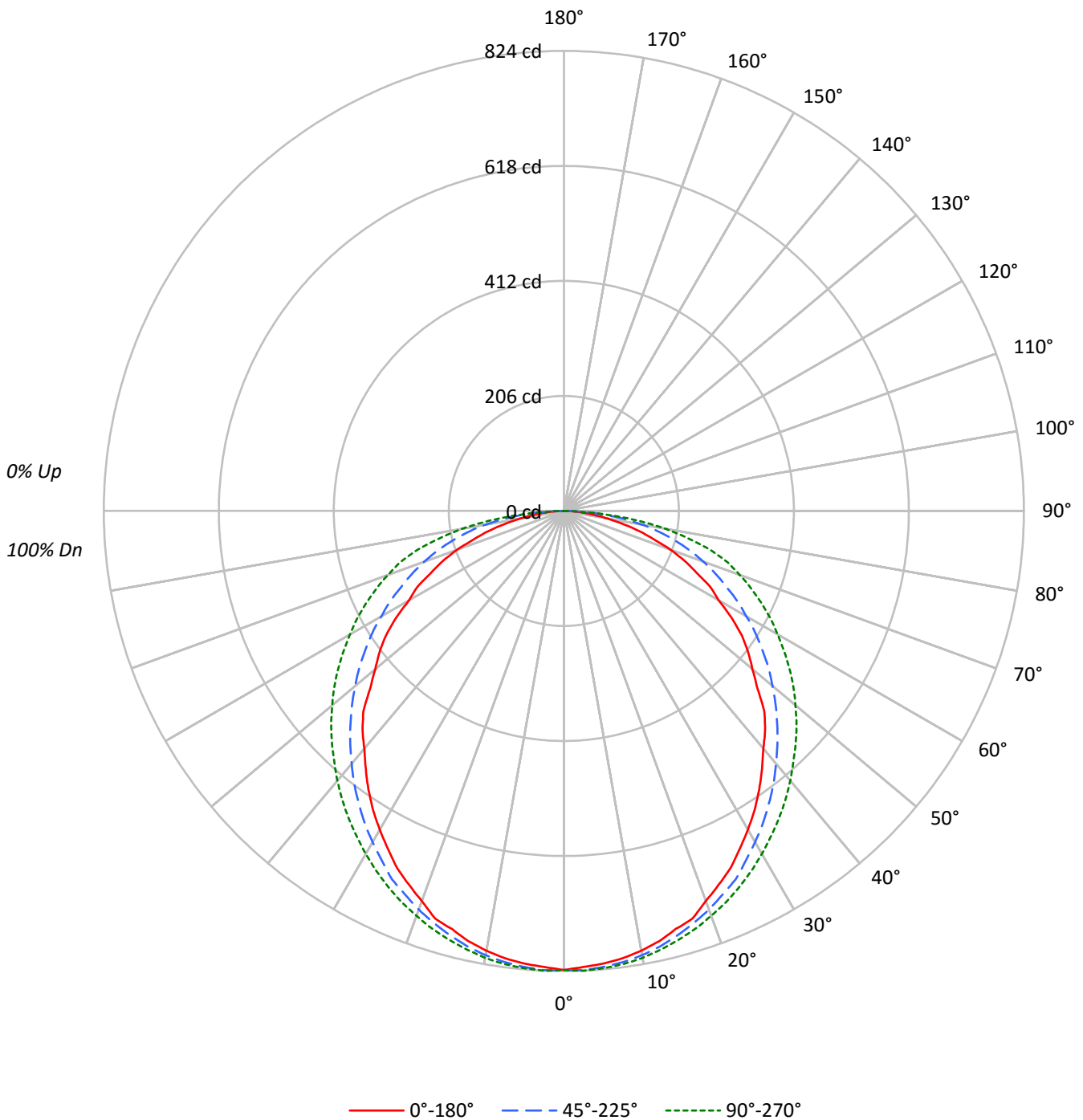
Input Watts (W): 22.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2212	2212	2212
5°	2198	2214	2220
10°	2185	2208	2220
15°	2159	2192	2215
20°	2129	2176	2210
25°	2096	2162	2207
30°	2048	2128	2204
35°	2003	2103	2207
40°	1952	2076	2216
45°	1932	2057	2236
50°	1846	2042	2268
55°	1826	2036	2316
60°	1723	2032	2379
65°	1673	2046	2486
70°	1605	2094	2639
75°	1463	2158	2840
80°	1254	2235	2872
85°	1013	2137	2461



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	3.2
10°-20°	221.9	9.1
20°-30°	334.0	13.6
30°-40°	400.8	16.4
40°-50°	418.9	17.1
50°-60°	390.4	15.9
60°-70°	320.2	13.1
70°-80°	215.8	8.8
80°-90°	70.3	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°	633.6	25.9
0°-40°	1034.4	42.2
0°-60°	1843.8	75.3
0°-90°	2450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2450.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	822	822	822	822	822	
5°	814	816	820	821	822	77
15°	775	780	787	794	795	219
25°	706	711	728	739	743	325
35°	610	618	640	662	672	381
45°	508	511	541	573	588	388
55°	389	396	434	475	494	345
65°	263	274	321	368	390	261
75°	141	156	208	254	273	148
85°	33	47	69	81	80	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	822.0	822.0	822.0	822.0	822.0
2.5°	817.3	819.7	823.2	824.3	824.3
5°	813.8	816.1	819.7	820.8	822.0
7.5°	807.9	810.3	815.0	817.3	818.5
10°	799.7	802.1	807.9	811.4	812.6
12.5°	789.2	791.5	798.5	803.2	804.4
15°	775.1	779.8	786.8	793.9	795.0
17.5°	765.7	764.5	773.9	782.1	784.5
20°	743.4	749.3	759.8	769.2	771.6
22.5°	724.7	729.4	743.4	754.0	758.7
25°	705.9	710.6	728.2	738.7	743.4
27.5°	682.5	689.5	705.9	721.2	727.0
30°	659.0	666.0	684.8	702.4	709.4
32.5°	635.6	643.8	663.7	682.5	690.7
35°	609.8	618.0	640.2	662.5	671.9
37.5°	582.8	593.3	616.8	641.4	652.0
40°	555.8	566.4	591.0	619.1	630.9
42.5°	533.5	538.2	566.4	596.9	608.6
45°	507.7	511.3	540.6	573.4	587.5
47.5°	470.2	483.1	514.8	551.1	565.2
50°	440.9	455.0	487.8	526.5	541.7
52.5°	416.3	425.7	462.0	500.7	518.3
55°	389.3	396.3	433.9	474.9	493.7
57.5°	356.5	369.4	406.9	449.1	467.9
60°	320.1	336.5	377.6	423.3	442.1
62.5°	296.7	306.0	350.6	396.3	417.4
65°	262.7	274.4	321.3	368.2	390.5
67.5°	234.5	246.2	294.3	341.2	363.5
70°	204.0	215.8	266.2	313.1	335.4
72.5°	168.9	185.3	238.0	284.9	308.4
75°	140.7	156.0	207.6	254.5	273.2
77.5°	109.1	129.0	177.1	215.8	229.8
80°	80.9	100.8	144.2	172.4	185.3
82.5°	55.1	75.0	107.9	129.0	136.0
85°	32.8	46.9	69.2	80.9	79.7
87.5°	15.2	19.9	28.1	28.1	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)