

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: P308699

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-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: P308699
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-CA125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 2347.0 lumens
Efficiency: N/A
Efficacy: 104.8 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

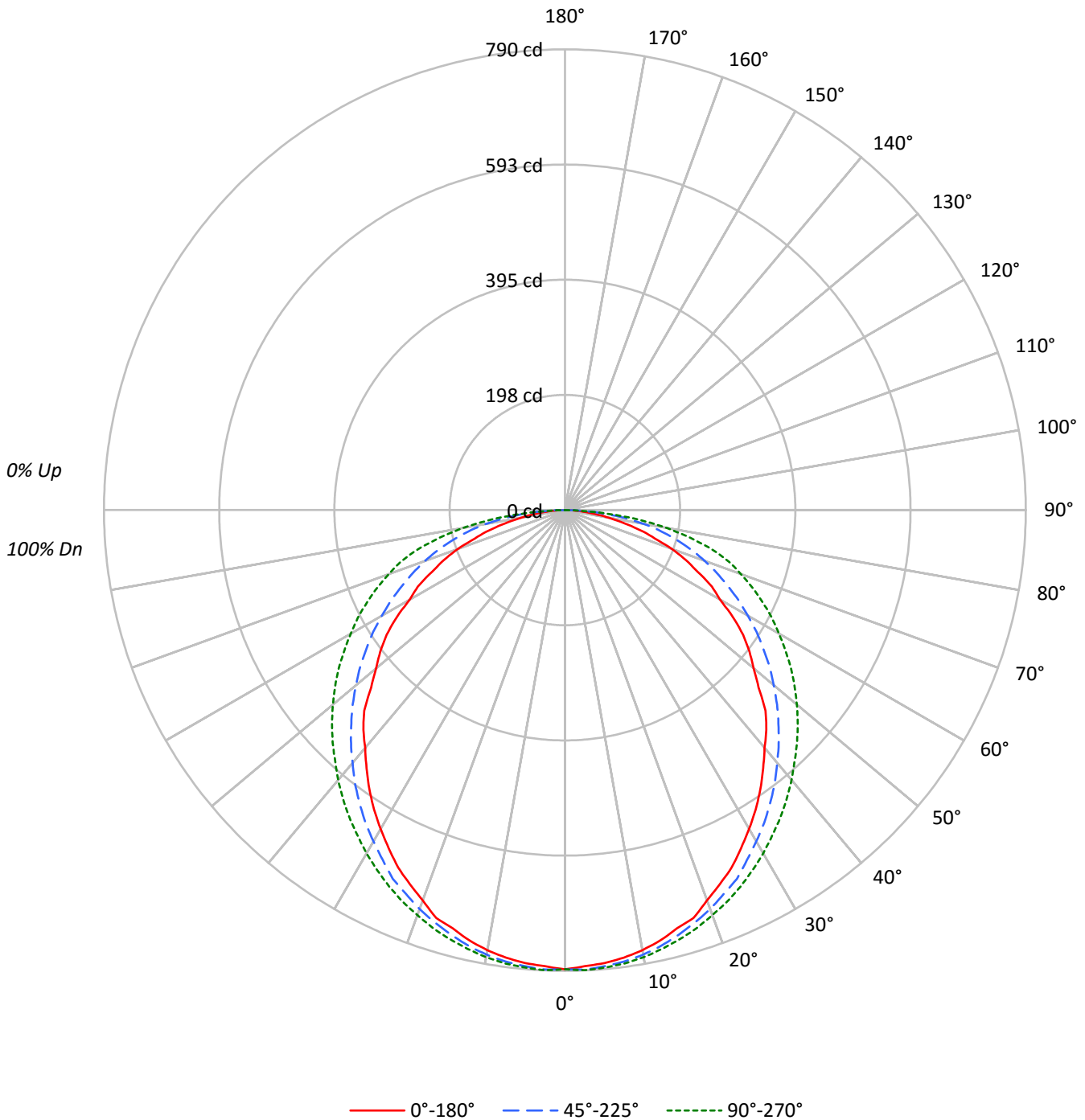
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2119	2119	2119
5°	2106	2121	2127
10°	2093	2115	2127
15°	2069	2100	2122
20°	2040	2084	2117
25°	2008	2071	2115
30°	1962	2038	2112
35°	1919	2015	2115
40°	1870	1989	2123
45°	1851	1971	2142
50°	1768	1956	2173
55°	1749	1950	2219
60°	1651	1947	2279
65°	1602	1960	2382
70°	1538	2006	2528
75°	1402	2067	2721
80°	1201	2142	2751
85°	973	2047	2359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	3.2
10°-20°	212.6	9.1
20°-30°	319.9	13.6
30°-40°	384.0	16.4
40°-50°	401.3	17.1
50°-60°	374.0	15.9
60°-70°	306.8	13.1
70°-80°	206.7	8.8
80°-90°	67.3	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°	607.0	25.9
0°-40°	990.9	42.2
0°-60°	1766.3	75.3
0°-90°	2347.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2347.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	787	787	787	787	787	
5°	780	782	785	786	787	74
15°	742	747	754	760	762	210
25°	676	681	698	708	712	311
35°	584	592	613	635	644	365
45°	486	490	518	549	563	372
55°	373	380	416	455	473	330
65°	252	263	308	353	374	250
75°	135	149	199	244	262	142
85°	32	45	66	78	76	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	787.4	787.4	787.4	787.4	787.4
2.5°	782.9	785.2	788.6	789.7	789.7
5°	779.6	781.8	785.2	786.3	787.4
7.5°	774.0	776.2	780.7	782.9	784.1
10°	766.1	768.3	774.0	777.3	778.5
12.5°	756.0	758.2	765.0	769.5	770.6
15°	742.5	747.0	753.7	760.5	761.6
17.5°	733.5	732.4	741.4	749.2	751.5
20°	712.2	717.8	727.9	736.9	739.1
22.5°	694.2	698.7	712.2	722.3	726.8
25°	676.2	680.7	697.6	707.7	712.2
27.5°	653.8	660.5	676.2	690.8	696.5
30°	631.3	638.0	656.0	672.9	679.6
32.5°	608.8	616.7	635.8	653.8	661.6
35°	584.1	592.0	613.3	634.7	643.7
37.5°	558.3	568.4	590.9	614.4	624.6
40°	532.4	542.6	566.1	593.1	604.3
42.5°	511.1	515.6	542.6	571.8	583.0
45°	486.4	489.8	517.8	549.3	562.8
47.5°	450.4	462.8	493.1	528.0	541.4
50°	422.4	435.8	467.3	504.4	519.0
52.5°	398.8	407.8	442.6	479.7	496.5
55°	372.9	379.7	415.6	454.9	472.9
57.5°	341.5	353.8	389.8	430.2	448.2
60°	306.7	322.4	361.7	405.5	423.5
62.5°	284.2	293.2	335.9	379.7	399.9
65°	251.6	262.9	307.8	352.7	374.1
67.5°	224.7	235.9	282.0	326.9	348.2
70°	195.5	206.7	255.0	299.9	321.3
72.5°	161.8	177.5	228.0	273.0	295.4
75°	134.8	149.4	198.8	243.8	261.7
77.5°	104.5	123.6	169.6	206.7	220.2
80°	77.5	96.6	138.2	165.1	177.5
82.5°	52.8	71.9	103.3	123.6	130.3
85°	31.5	44.9	66.3	77.5	76.4
87.5°	14.6	19.1	27.0	27.0	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)