

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: P308715

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP125-W2A-U-5700K**

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: P308715
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-5700K
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: 2615.0 lumens
Efficiency: N/A
Efficacy: 113.7 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

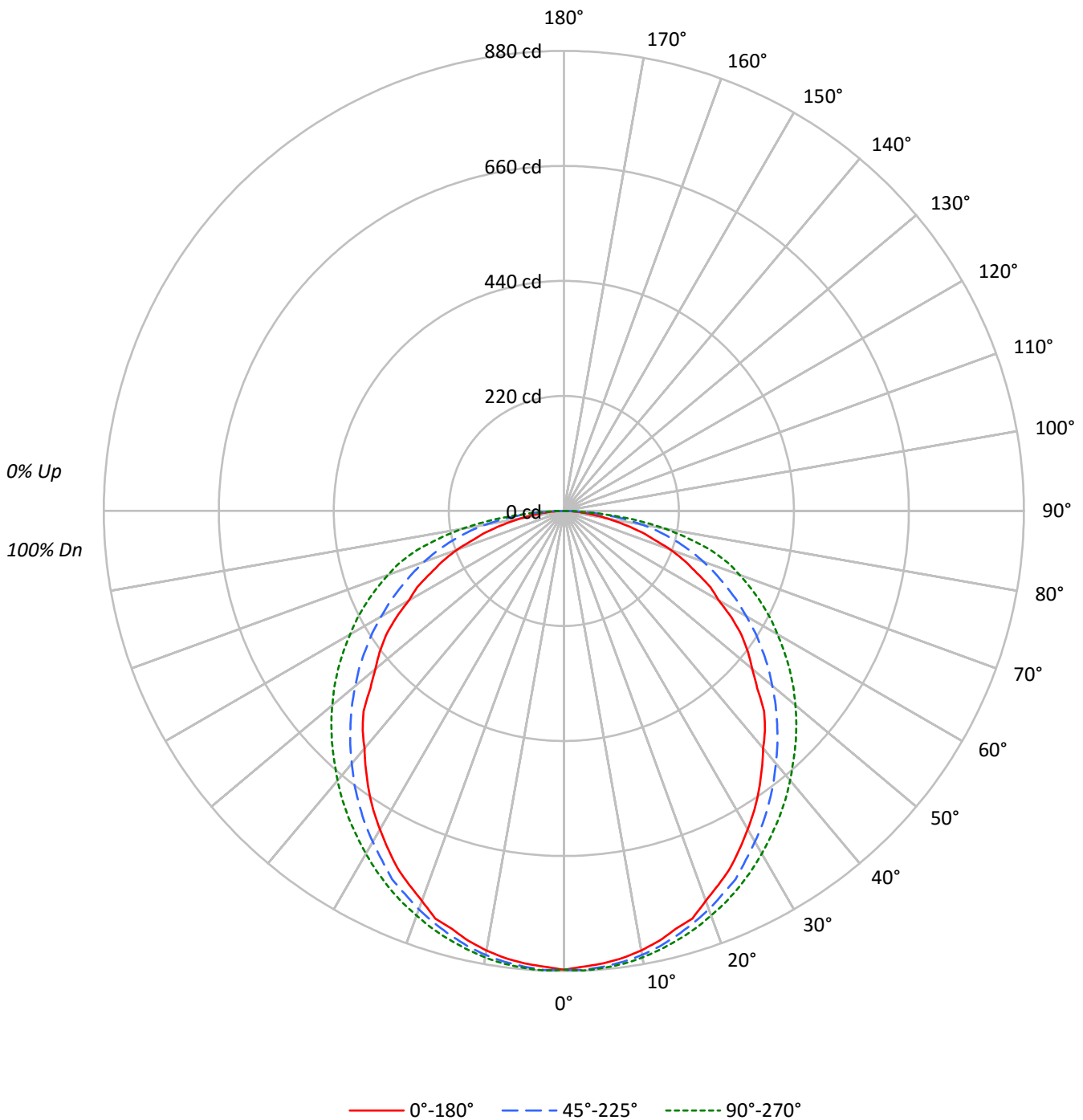
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2361	2361	2361
5°	2346	2363	2370
10°	2332	2356	2370
15°	2305	2340	2364
20°	2272	2322	2358
25°	2237	2308	2356
30°	2186	2271	2353
35°	2138	2245	2356
40°	2084	2216	2365
45°	2062	2196	2386
50°	1970	2180	2421
55°	1949	2173	2472
60°	1839	2169	2539
65°	1785	2183	2654
70°	1714	2235	2817
75°	1562	2303	3032
80°	1339	2385	3064
85°	1081	2279	2628



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	3.2
10°-20°	236.8	9.1
20°-30°	356.4	13.6
30°-40°	427.8	16.4
40°-50°	447.1	17.1
50°-60°	416.7	15.9
60°-70°	341.8	13.1
70°-80°	230.3	8.8
80°-90°	75.0	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°	676.3	25.9
0°-40°	1104.1	42.2
0°-60°	1967.9	75.3
0°-90°	2615.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2615.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	869	871	875	876	877	82
15°	827	832	840	847	849	234
25°	753	758	777	788	794	346
35°	651	660	683	707	717	407
45°	542	546	577	612	627	414
55°	416	423	463	507	527	368
65°	280	293	343	393	417	279
75°	150	166	222	272	292	158
85°	35	50	74	86	85	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	877.4	877.4	877.4	877.4	877.4
2.5°	872.3	874.9	878.6	879.9	879.9
5°	868.6	871.1	874.9	876.1	877.4
7.5°	862.3	864.8	869.8	872.3	873.6
10°	853.6	856.1	862.3	866.1	867.3
12.5°	842.3	844.8	852.3	857.3	858.6
15°	827.3	832.3	839.8	847.3	848.6
17.5°	817.3	816.0	826.0	834.8	837.3
20°	793.5	799.8	811.0	821.0	823.5
22.5°	773.5	778.5	793.5	804.8	809.8
25°	753.4	758.5	777.2	788.5	793.5
27.5°	728.4	735.9	753.4	769.7	776.0
30°	703.4	710.9	730.9	749.7	757.2
32.5°	678.4	687.1	708.4	728.4	737.2
35°	650.8	659.6	683.4	707.1	717.2
37.5°	622.0	633.3	658.3	684.6	695.9
40°	593.2	604.5	630.8	660.8	673.3
42.5°	569.5	574.5	604.5	637.1	649.6
45°	541.9	545.7	577.0	612.0	627.0
47.5°	501.9	515.6	549.4	588.2	603.3
50°	470.6	485.6	520.7	562.0	578.2
52.5°	444.3	454.3	493.1	534.4	553.2
55°	415.5	423.0	463.1	506.9	526.9
57.5°	380.5	394.2	434.3	479.4	499.4
60°	341.7	359.2	403.0	451.8	471.8
62.5°	316.6	326.7	374.2	423.0	445.6
65°	280.4	292.9	342.9	393.0	416.8
67.5°	250.3	262.8	314.1	364.2	388.0
70°	217.8	230.3	284.1	334.2	358.0
72.5°	180.2	197.7	254.1	304.1	329.2
75°	150.2	166.5	221.5	271.6	291.6
77.5°	116.4	137.7	189.0	230.3	245.3
80°	86.4	107.6	153.9	184.0	197.7
82.5°	58.8	80.1	115.1	137.7	145.2
85°	35.0	50.1	73.8	86.4	85.1
87.5°	16.3	21.3	30.0	30.0	28.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)