

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: P308702

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CA125-W2A-U-4000K**

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: P308702
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-4000K
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: 2553.0 lumens
Efficiency: N/A
Efficacy: 112.5 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

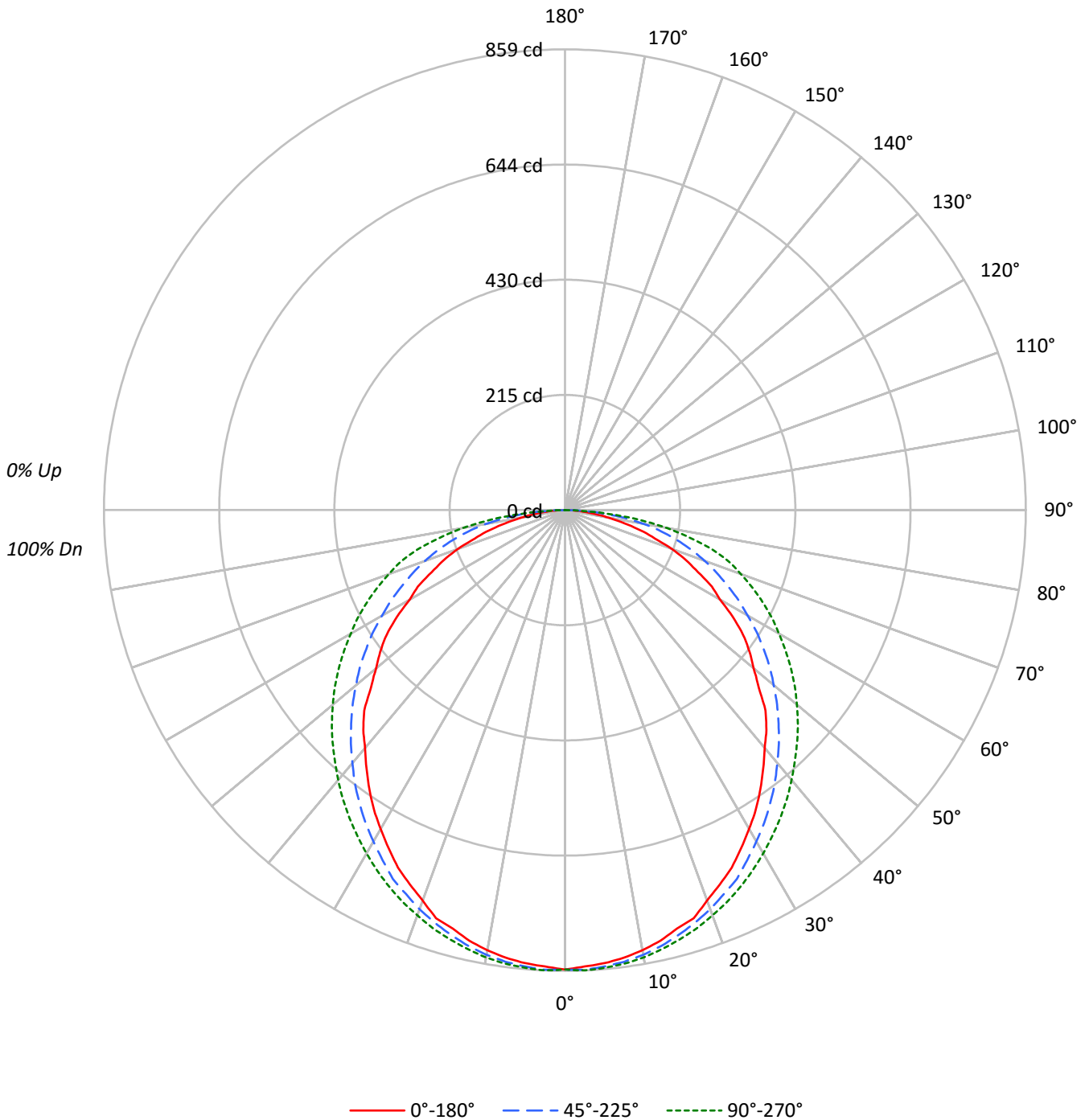
Input Watts (W): 22.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2305	2305	2305
5°	2291	2307	2314
10°	2277	2300	2314
15°	2250	2284	2308
20°	2218	2267	2302
25°	2184	2253	2300
30°	2134	2217	2297
35°	2087	2192	2300
40°	2035	2163	2309
45°	2014	2144	2330
50°	1923	2128	2363
55°	1903	2121	2413
60°	1795	2118	2479
65°	1743	2132	2591
70°	1673	2183	2750
75°	1524	2249	2960
80°	1306	2329	2992
85°	1056	2226	2566



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.1	3.2
10°-20°	231.2	9.1
20°-30°	348.0	13.6
30°-40°	417.7	16.4
40°-50°	436.5	17.1
50°-60°	406.8	15.9
60°-70°	333.7	13.1
70°-80°	224.8	8.8
80°-90°	73.2	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°	660.3	25.9
0°-40°	1077.9	42.2
0°-60°	1921.3	75.3
0°-90°	2553.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2553.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	848	850	854	855	857	80
15°	808	813	820	827	828	228
25°	736	740	759	770	775	338
35°	635	644	667	690	700	397
45°	529	533	563	598	612	404
55°	406	413	452	495	514	359
65°	274	286	335	384	407	272
75°	147	162	216	265	285	154
85°	34	49	72	84	83	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	856.6	856.6	856.6	856.6	856.6
2.5°	851.7	854.1	857.8	859.0	859.0
5°	848.0	850.4	854.1	855.3	856.6
7.5°	841.9	844.3	849.2	851.7	852.9
10°	833.3	835.8	841.9	845.6	846.8
12.5°	822.3	824.8	832.1	837.0	838.2
15°	807.7	812.6	819.9	827.2	828.4
17.5°	797.9	796.7	806.5	815.0	817.5
20°	774.7	780.8	791.8	801.6	804.0
22.5°	755.1	760.0	774.7	785.7	790.6
25°	735.6	740.5	758.8	769.8	774.7
27.5°	711.1	718.5	735.6	751.5	757.6
30°	686.7	694.0	713.6	731.9	739.3
32.5°	662.3	670.8	691.6	711.1	719.7
35°	635.4	643.9	667.2	690.4	700.1
37.5°	607.3	618.3	642.7	668.4	679.4
40°	579.2	590.2	615.8	645.2	657.4
42.5°	556.0	560.9	590.2	621.9	634.2
45°	529.1	532.7	563.3	597.5	612.2
47.5°	490.0	503.4	536.4	574.3	589.0
50°	459.4	474.1	508.3	548.6	564.5
52.5°	433.8	443.6	481.4	521.8	540.1
55°	405.7	413.0	452.1	494.9	514.4
57.5°	371.5	384.9	424.0	468.0	487.5
60°	333.6	350.7	393.5	441.1	460.7
62.5°	309.1	318.9	365.3	413.0	435.0
65°	273.7	285.9	334.8	383.7	406.9
67.5°	244.4	256.6	306.7	355.6	378.8
70°	212.6	224.8	277.4	326.2	349.5
72.5°	176.0	193.1	248.0	296.9	321.4
75°	146.6	162.5	216.3	265.2	284.7
77.5°	113.6	134.4	184.5	224.8	239.5
80°	84.3	105.1	150.3	179.6	193.1
82.5°	57.4	78.2	112.4	134.4	141.7
85°	34.2	48.9	72.1	84.3	83.1
87.5°	15.9	20.8	29.3	29.3	28.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)