

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: P308970

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CA125-W2A-U-3000K**

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: P308970
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 2547.0 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

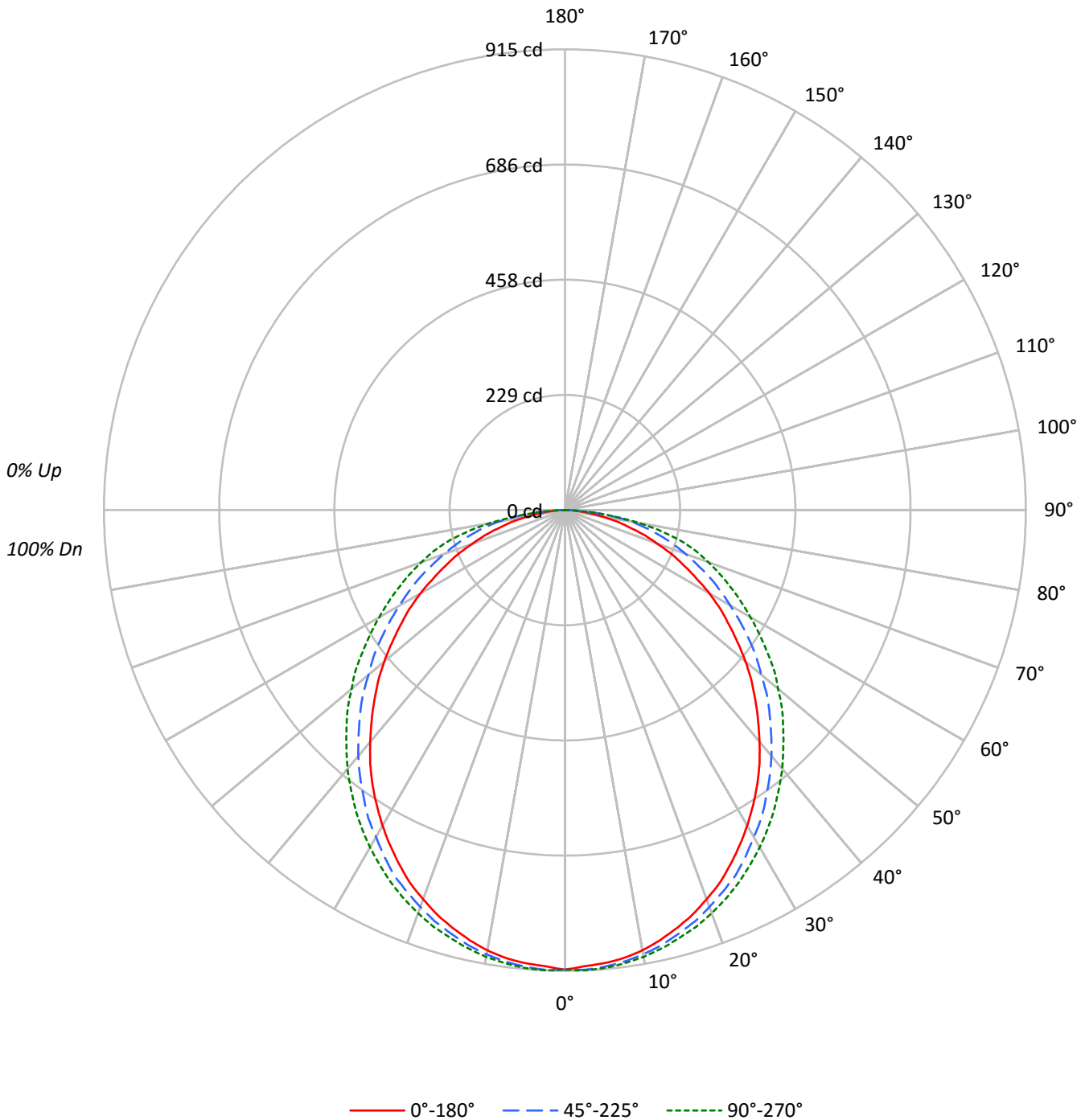
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2456	2456	2456
5°	2440	2459	2465
10°	2426	2448	2461
15°	2394	2427	2450
20°	2355	2403	2440
25°	2308	2378	2424
30°	2249	2330	2404
35°	2186	2288	2381
40°	2112	2242	2359
45°	2035	2189	2334
50°	1960	2129	2313
55°	1868	2091	2297
60°	1785	2040	2289
65°	1664	2028	2315
70°	1533	2010	2384
75°	1384	2039	2508
80°	1196	2100	2357
85°	991	1760	1760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	3.4
10°-20°	245.6	9.6
20°-30°	367.5	14.4
30°-40°	435.2	17.1
40°-50°	443.6	17.4
50°-60°	397.5	15.6
60°-70°	311.2	12.2
70°-80°	200.7	7.9
80°-90°	59.3	2.3
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°	699.4	27.5
0°-40°	1134.7	44.5
0°-60°	1975.8	77.6
0°-90°	2547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2547.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	913	913	913	913	913	
5°	903	906	910	912	913	86
15°	859	864	871	878	879	242
25°	777	784	801	812	816	358
35°	666	674	696	718	725	416
45°	535	547	575	605	613	413
55°	398	411	446	476	490	357
65°	261	277	318	349	364	260
75°	133	153	196	229	241	143
85°	32	44	57	57	57	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	912.7	912.7	912.7	912.7	912.7
2.5°	906.7	909.1	913.9	915.0	915.0
5°	903.2	905.5	910.3	911.5	912.7
7.5°	897.2	898.4	904.4	906.7	907.9
10°	887.7	890.1	896.0	899.6	900.8
12.5°	874.6	878.2	885.3	890.1	891.3
15°	859.2	863.9	871.1	878.2	879.4
17.5°	842.6	847.3	856.8	865.1	867.5
20°	822.4	828.3	839.0	848.5	852.1
22.5°	802.2	806.9	820.0	831.9	835.4
25°	777.2	784.3	801.0	811.7	816.4
27.5°	751.1	759.4	776.0	790.3	795.0
30°	723.7	732.0	749.9	767.7	773.6
32.5°	695.2	704.7	726.1	743.9	749.9
35°	665.5	673.8	696.4	717.8	724.9
37.5°	634.6	641.7	667.9	690.4	697.6
40°	601.3	610.8	638.2	664.3	671.4
42.5°	568.0	578.7	606.1	634.6	641.7
45°	534.8	546.7	575.2	604.9	613.2
47.5°	502.7	512.2	544.3	572.8	584.7
50°	468.2	477.7	508.6	540.7	552.6
52.5°	432.6	445.6	478.9	509.8	524.1
55°	398.1	411.2	445.6	476.5	489.6
57.5°	366.0	376.7	412.4	444.5	457.5
60°	331.6	341.1	379.1	413.6	425.4
62.5°	294.7	309.0	348.2	380.3	394.5
65°	261.4	276.9	318.5	349.4	363.6
67.5°	230.5	244.8	285.2	318.5	333.9
70°	194.9	213.9	255.5	288.8	303.0
72.5°	166.4	183.0	225.8	259.1	274.5
75°	133.1	153.3	196.1	229.4	241.2
77.5°	105.8	126.0	166.4	192.5	198.5
80°	77.2	97.4	135.5	148.5	152.1
82.5°	52.3	71.3	97.4	101.0	102.2
85°	32.1	44.0	57.0	57.0	57.0
87.5°	15.4	17.8	20.2	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)