

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: P312945

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-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: P312945
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-L83050-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: 2549.0 lumens
Efficiency: N/A
Efficacy: 113.8 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

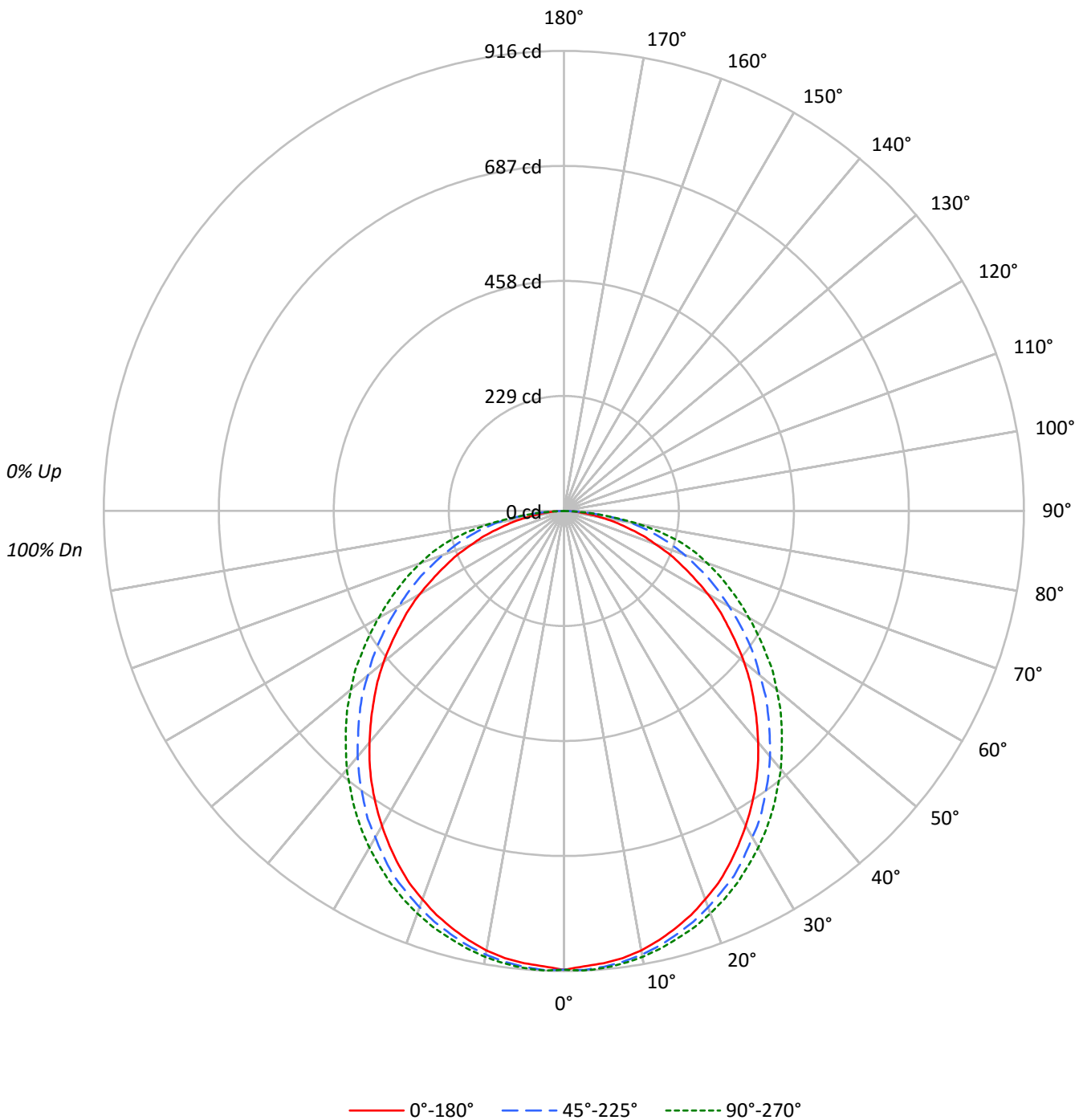
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2458	2458	2458
5°	2442	2461	2467
10°	2428	2450	2463
15°	2396	2429	2452
20°	2357	2404	2442
25°	2309	2380	2426
30°	2251	2332	2406
35°	2188	2289	2383
40°	2114	2244	2361
45°	2037	2191	2336
50°	1962	2131	2315
55°	1869	2092	2299
60°	1786	2042	2292
65°	1666	2029	2317
70°	1534	2012	2386
75°	1385	2040	2510
80°	1198	2101	2359
85°	991	1763	1763



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	3.4
10°-20°	245.8	9.6
20°-30°	367.8	14.4
30°-40°	435.6	17.1
40°-50°	443.9	17.4
50°-60°	397.9	15.6
60°-70°	311.5	12.2
70°-80°	200.9	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°	700.0	27.5
0°-40°	1135.6	44.5
0°-60°	1977.3	77.6
0°-90°	2549.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2549.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	913	913	913	913	913	
5°	904	906	911	912	913	86
15°	860	865	872	879	880	242
25°	778	785	802	812	817	358
35°	666	674	697	718	726	416
45°	535	547	576	605	614	413
55°	398	412	446	477	490	357
65°	262	277	319	350	364	260
75°	133	153	196	230	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°	913.4	913.4	913.4	913.4	913.4
2.5°	907.4	909.8	914.6	915.8	915.8
5°	903.9	906.3	911.0	912.2	913.4
7.5°	897.9	899.1	905.1	907.4	908.6
10°	888.4	890.8	896.7	900.3	901.5
12.5°	875.3	878.9	886.0	890.8	892.0
15°	859.9	864.6	871.8	878.9	880.1
17.5°	843.2	848.0	857.5	865.8	868.2
20°	823.0	828.9	839.6	849.2	852.7
22.5°	802.8	807.5	820.6	832.5	836.1
25°	777.8	784.9	801.6	812.3	817.1
27.5°	751.6	760.0	776.6	790.9	795.6
30°	724.3	732.6	750.5	768.3	774.2
32.5°	695.7	705.3	726.7	744.5	750.5
35°	666.0	674.3	696.9	718.3	725.5
37.5°	635.1	642.2	668.4	691.0	698.1
40°	601.8	611.3	638.7	664.8	672.0
42.5°	568.5	579.2	606.5	635.1	642.2
45°	535.2	547.1	575.6	605.4	613.7
47.5°	503.1	512.6	544.7	573.2	585.1
50°	468.6	478.1	509.0	541.1	553.0
52.5°	432.9	446.0	479.3	510.2	524.5
55°	398.4	411.5	446.0	476.9	490.0
57.5°	366.3	377.0	412.7	444.8	457.9
60°	331.8	341.3	379.4	413.9	425.8
62.5°	294.9	309.2	348.5	380.6	394.8
65°	261.6	277.1	318.7	349.7	363.9
67.5°	230.7	245.0	285.4	318.7	334.2
70°	195.0	214.1	255.7	289.0	303.3
72.5°	166.5	183.2	226.0	259.3	274.7
75°	133.2	153.4	196.2	229.5	241.4
77.5°	105.8	126.1	166.5	192.7	198.6
80°	77.3	97.5	135.6	148.7	152.2
82.5°	52.3	71.4	97.5	101.1	102.3
85°	32.1	44.0	57.1	57.1	57.1
87.5°	15.5	17.8	20.2	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)