

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: P307892

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-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: P307892
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-S-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS,0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2816.0 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

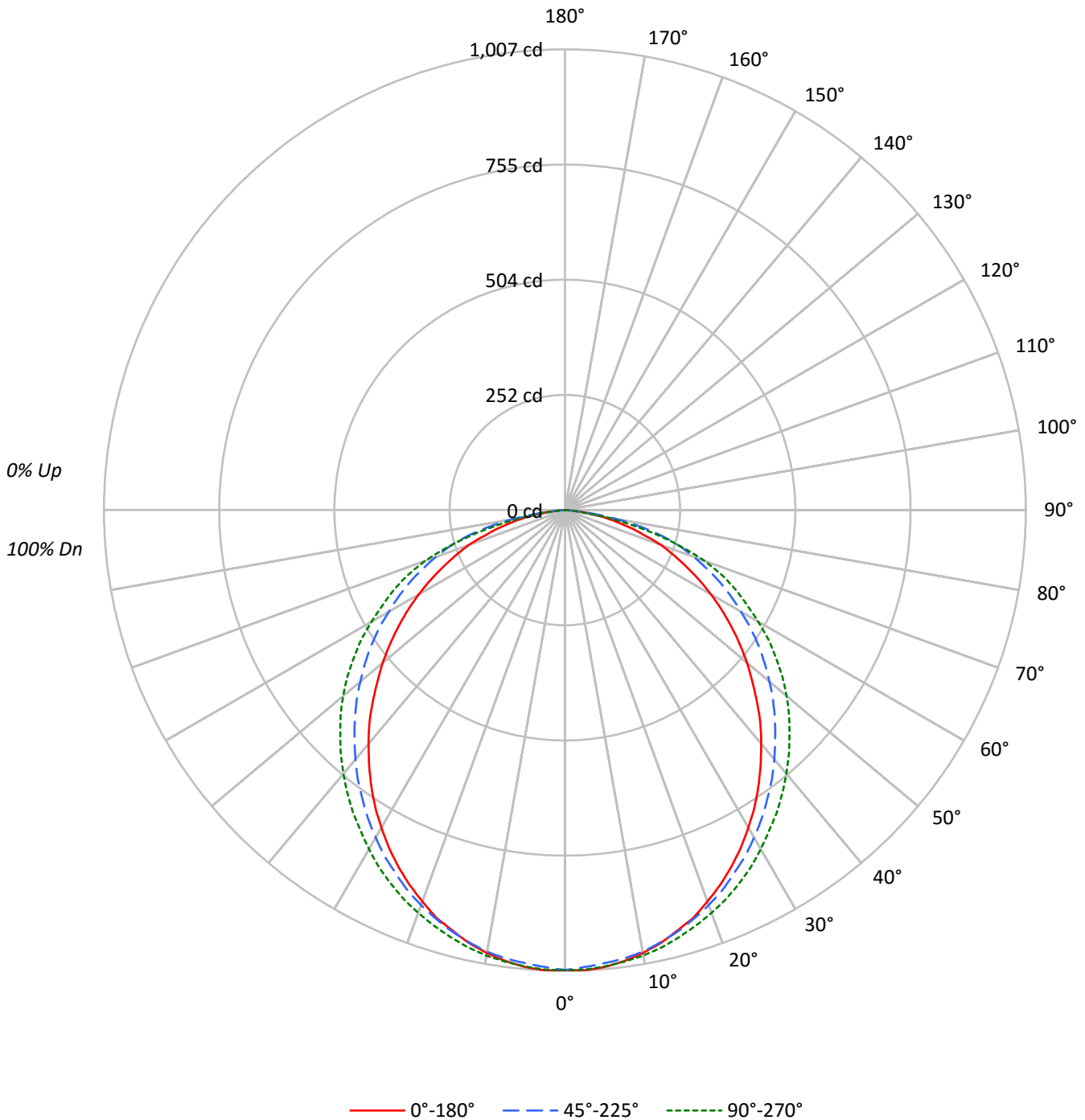
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	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	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2705	2705	2705
5°	2708	2685	2704
10°	2686	2678	2701
15°	2649	2657	2692
20°	2607	2631	2683
25°	2554	2599	2674
30°	2490	2568	2660
35°	2422	2532	2651
40°	2344	2501	2644
45°	2258	2471	2641
50°	2174	2443	2648
55°	2083	2424	2640
60°	1984	2390	2623
65°	1867	2383	2623
70°	1758	2362	2548
75°	1524	2308	2177
80°	1234	1861	1449
85°	818	645	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	3.4
10°-20°	270.1	9.6
20°-30°	405.2	14.4
30°-40°	483.4	17.2
40°-50°	499.7	17.7
50°-60°	456.2	16.2
60°-70°	359.0	12.7
70°-80°	209.0	7.4
80°-90°	38.5	1.4
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°	770.2	27.4
0°-40°	1253.6	44.5
0°-60°	2209.5	78.5
0°-90°	2816.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2816.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	1002	1000	994	1002	1001	95
15°	951	952	954	966	966	268
25°	860	864	875	896	901	396
35°	737	747	771	800	807	461
45°	593	613	649	686	694	458
55°	444	468	517	554	563	397
65°	293	324	374	404	412	291
75°	147	182	222	218	209	156
85°	26	38	21	17	14	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1005.3	1005.3	1005.3	1005.3	1005.3
2.5°	1006.7	1003.9	999.7	1006.7	1005.3
5°	1002.5	999.7	994.1	1002.5	1001.1
7.5°	994.1	991.3	988.5	996.9	995.5
10°	982.9	981.5	980.1	989.9	988.5
12.5°	969.0	969.0	967.6	978.7	978.7
15°	950.8	952.2	953.6	966.2	966.2
17.5°	934.1	932.7	936.9	950.8	952.2
20°	910.3	913.1	918.7	935.5	936.9
22.5°	886.6	889.4	899.2	915.9	920.1
25°	860.1	864.2	875.4	896.4	900.6
27.5°	832.1	837.7	853.1	875.4	879.6
30°	801.4	809.8	826.6	851.7	855.9
32.5°	770.7	779.1	800.0	825.2	830.7
35°	737.2	747.0	770.7	800.0	807.0
37.5°	702.3	714.9	742.8	772.1	780.5
40°	667.4	681.3	712.1	742.8	752.6
42.5°	632.5	646.4	680.0	714.9	724.6
45°	593.4	612.9	649.2	685.5	693.9
47.5°	555.7	576.6	617.1	653.4	664.6
50°	519.4	540.3	583.6	621.3	632.5
52.5°	481.7	504.0	550.1	589.2	599.0
55°	444.0	467.7	516.6	554.3	562.7
57.5°	406.3	431.4	481.7	518.0	527.8
60°	368.6	395.1	444.0	480.3	487.3
62.5°	330.9	358.8	409.1	441.2	448.2
65°	293.2	323.9	374.2	403.5	411.9
67.5°	256.9	287.6	336.5	364.4	371.4
70°	223.4	251.3	300.2	321.1	323.9
72.5°	181.5	216.4	263.9	275.1	268.1
75°	146.6	181.5	222.0	217.8	209.4
77.5°	111.7	146.6	173.1	159.2	148.0
80°	79.6	114.5	120.1	99.1	93.5
82.5°	51.7	79.6	67.0	51.7	41.9
85°	26.5	37.7	20.9	16.8	14.0
87.5°	8.4	5.6	2.8	2.8	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)