

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: P312342

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-CA08-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: P312342
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-L83050-S-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" 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: 2973.0 lumens
Efficiency: N/A
Efficacy: 122.3 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

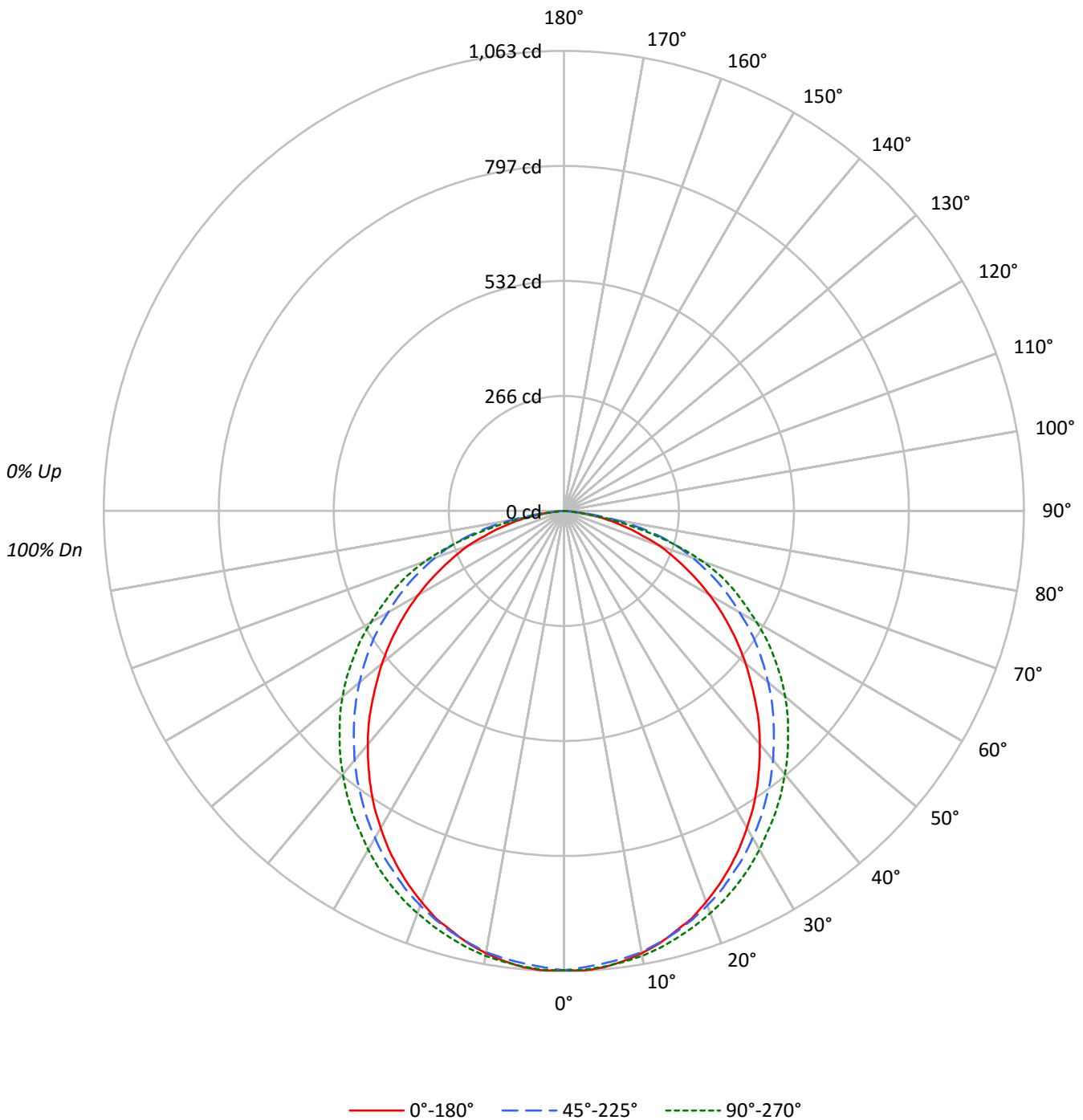
Input Watts (W): 24.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2856	2856	2856
5°	2859	2835	2855
10°	2836	2828	2852
15°	2796	2805	2842
20°	2752	2777	2832
25°	2696	2744	2823
30°	2629	2711	2808
35°	2557	2673	2799
40°	2475	2641	2791
45°	2384	2608	2788
50°	2295	2580	2795
55°	2199	2559	2787
60°	2094	2523	2768
65°	1971	2515	2769
70°	1855	2493	2691
75°	1609	2437	2299
80°	1302	1965	1531
85°	865	682	454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	3.4
10°-20°	285.2	9.6
20°-30°	427.8	14.4
30°-40°	510.3	17.2
40°-50°	527.5	17.7
50°-60°	481.6	16.2
60°-70°	379.0	12.7
70°-80°	220.6	7.4
80°-90°	40.6	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°	813.2	27.4
0°-40°	1323.5	44.5
0°-60°	2332.7	78.5
0°-90°	2973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1058	1055	1050	1058	1057	100
15°	1004	1005	1007	1020	1020	283
25°	908	912	924	946	951	418
35°	778	789	814	845	852	486
45°	626	647	685	724	733	484
55°	469	494	545	585	594	419
65°	310	342	395	426	435	307
75°	155	192	234	230	221	165
85°	28	40	22	18	15	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.3	1061.3	1061.3	1061.3	1061.3
2.5°	1062.8	1059.8	1055.4	1062.8	1061.3
5°	1058.4	1055.4	1049.5	1058.4	1056.9
7.5°	1049.5	1046.6	1043.6	1052.5	1051.0
10°	1037.7	1036.3	1034.8	1045.1	1043.6
12.5°	1023.0	1023.0	1021.5	1033.3	1033.3
15°	1003.8	1005.3	1006.8	1020.0	1020.0
17.5°	986.1	984.7	989.1	1003.8	1005.3
20°	961.1	964.0	969.9	987.6	989.1
22.5°	936.0	939.0	949.3	967.0	971.4
25°	908.0	912.4	924.2	946.3	950.8
27.5°	878.5	884.4	900.6	924.2	928.6
30°	846.1	854.9	872.6	899.2	903.6
32.5°	813.7	822.5	844.6	871.2	877.1
35°	778.3	788.6	813.7	844.6	852.0
37.5°	741.4	754.7	784.2	815.1	824.0
40°	704.6	719.3	751.8	784.2	794.5
42.5°	667.7	682.5	717.9	754.7	765.0
45°	626.5	647.1	685.4	723.8	732.6
47.5°	586.7	608.8	651.5	689.9	701.6
50°	548.3	570.5	616.2	655.9	667.7
52.5°	508.5	532.1	580.8	622.0	632.4
55°	468.7	493.8	545.4	585.2	594.0
57.5°	428.9	455.5	508.5	546.9	557.2
60°	389.1	417.2	468.7	507.1	514.4
62.5°	349.3	378.8	431.9	465.8	473.2
65°	309.5	342.0	395.0	426.0	434.8
67.5°	271.2	303.7	355.2	384.7	392.1
70°	235.8	265.3	316.9	339.0	342.0
72.5°	191.6	228.5	278.6	290.4	283.0
75°	154.8	191.6	234.4	230.0	221.1
77.5°	117.9	154.8	182.8	168.0	156.2
80°	84.0	120.9	126.8	104.7	98.8
82.5°	54.5	84.0	70.8	54.5	44.2
85°	28.0	39.8	22.1	17.7	14.7
87.5°	8.8	5.9	2.9	2.9	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)