

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: P312220

Luminaire Tested: **14FCZ2-35-UNV-L83050-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: P312220
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L83050-CA125-W2A-U-3000K
Description: 1'X4' 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

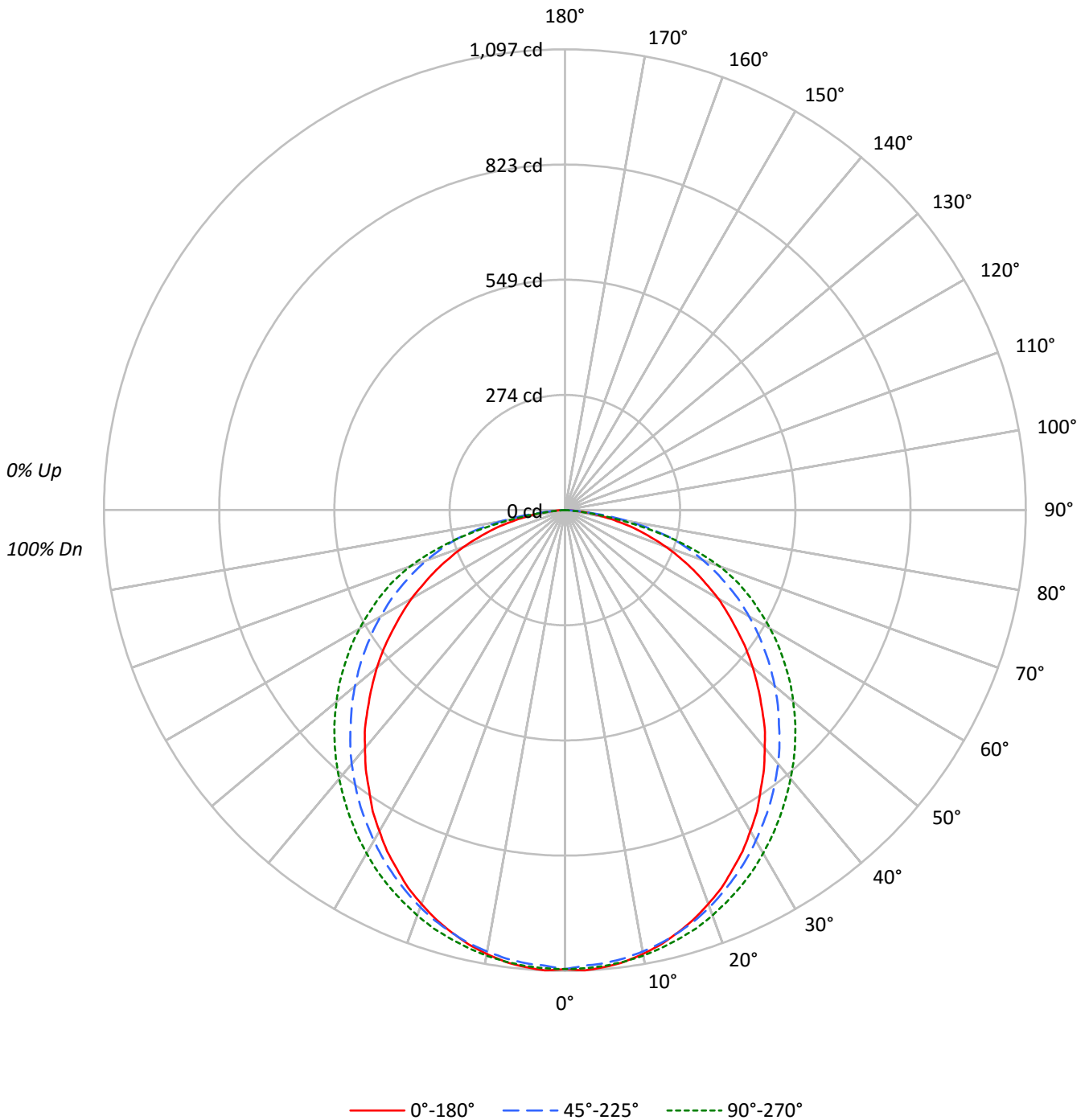
Lumens per Lamp: N/A
Luminaire Lumens: 3172.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29.4
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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2941	2941	2941
5°	2950	2925	2942
10°	2932	2916	2943
15°	2900	2902	2942
20°	2858	2882	2941
25°	2803	2854	2938
30°	2743	2824	2932
35°	2670	2800	2930
40°	2599	2773	2934
45°	2519	2743	2950
50°	2446	2730	2970
55°	2353	2721	2997
60°	2268	2725	3038
65°	2153	2734	3085
70°	2020	2755	3083
75°	1831	2780	2787
80°	1502	2400	1984
85°	1115	1136	460



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.4	3.3
10°-20°	295.4	9.3
20°-30°	445.0	14.0
30°-40°	534.0	16.8
40°-50°	556.5	17.5
50°-60°	515.2	16.2
60°-70°	416.3	13.1
70°-80°	253.8	8.0
80°-90°	52.4	1.7
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°	843.8	26.6
0°-40°	1377.7	43.4
0°-60°	2449.5	77.2
0°-90°	3172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3172.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1093	1093	1093	1093	1093	
5°	1092	1089	1083	1091	1089	104
15°	1041	1042	1042	1056	1056	293
25°	944	950	961	985	990	435
35°	813	825	852	883	892	509
45°	662	682	721	761	775	512
55°	502	528	580	625	639	449
65°	338	371	429	472	484	334
75°	176	215	267	272	268	185
85°	36	54	37	20	15	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1092.8	1092.8	1092.8	1092.8	1092.8
2.5°	1097.0	1093.5	1085.7	1093.5	1092.1
5°	1092.1	1089.2	1082.9	1090.6	1089.2
7.5°	1085.0	1082.2	1076.5	1085.7	1084.3
10°	1073.0	1071.5	1067.3	1077.9	1077.2
12.5°	1058.8	1058.1	1056.0	1068.0	1067.3
15°	1041.1	1041.8	1041.8	1056.0	1056.0
17.5°	1021.3	1022.7	1025.6	1041.1	1043.3
20°	998.0	1000.8	1006.5	1024.2	1027.0
22.5°	973.9	976.1	984.5	1005.8	1008.6
25°	944.2	949.9	961.2	985.3	989.5
27.5°	915.9	920.9	936.5	961.2	968.3
30°	882.7	890.5	908.9	935.7	943.5
32.5°	850.9	859.4	880.6	911.7	918.8
35°	812.7	825.4	852.3	883.4	891.9
37.5°	778.0	790.0	820.5	854.4	864.3
40°	739.8	754.7	789.3	825.4	835.3
42.5°	704.5	718.6	756.1	792.9	806.3
45°	662.0	681.8	720.7	761.0	775.2
47.5°	623.1	642.9	687.5	730.6	743.4
50°	584.2	605.4	652.1	696.7	709.4
52.5°	543.9	566.5	616.8	661.3	676.2
55°	501.5	527.6	580.0	625.2	638.7
57.5°	461.2	488.0	543.9	589.9	603.3
60°	421.5	449.1	506.4	550.3	564.4
62.5°	377.7	410.2	469.6	512.8	523.4
65°	338.1	371.3	429.3	472.5	484.5
67.5°	296.4	332.4	390.4	430.0	441.3
70°	256.7	294.2	350.1	386.9	391.8
72.5°	214.3	252.5	309.1	332.4	332.4
75°	176.1	215.0	267.4	271.6	268.1
77.5°	134.4	177.5	211.5	203.0	194.5
80°	96.9	139.3	154.9	139.3	128.0
82.5°	65.1	101.1	93.4	74.3	65.8
85°	36.1	53.8	36.8	20.5	14.9
87.5°	13.4	12.0	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)