

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: P312216

Luminaire Tested: **14FCZ2-35-UNV-L83050-CA08-W2A-U-3500K**

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: P312216
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-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3500K 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: 3369.0 lumens
Efficiency: N/A
Efficacy: 114.2 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

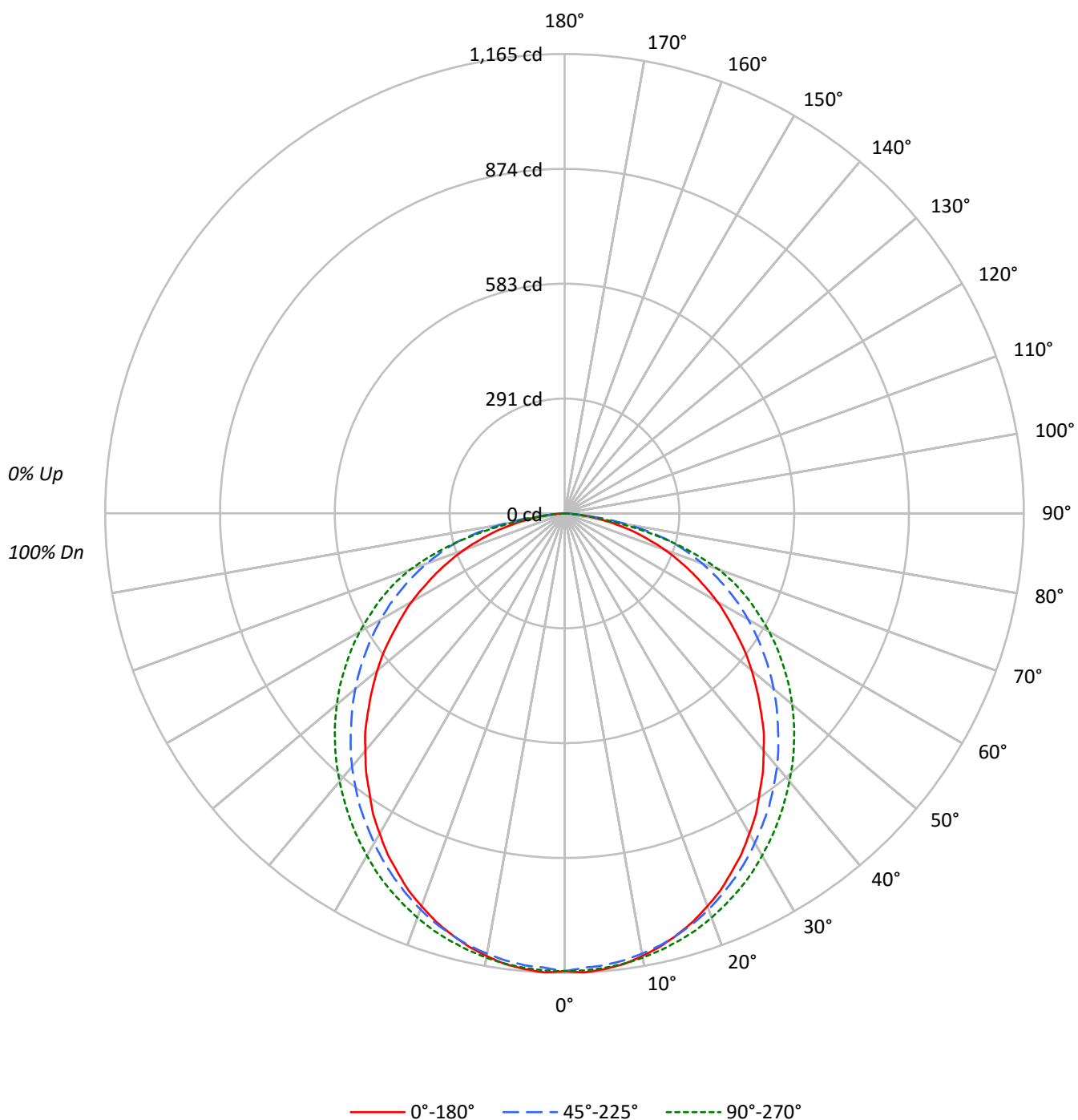
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3123	3123	3123
5°	3133	3107	3125
10°	3114	3098	3126
15°	3081	3083	3125
20°	3036	3061	3124
25°	2978	3031	3121
30°	2913	2999	3114
35°	2835	2974	3112
40°	2760	2945	3117
45°	2676	2913	3133
50°	2598	2900	3154
55°	2499	2890	3182
60°	2410	2895	3226
65°	2287	2904	3277
70°	2146	2926	3275
75°	1945	2953	2960
80°	1595	2549	2108
85°	1183	1207	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.8	3.3
10°-20°	313.7	9.3
20°-30°	472.6	14.0
30°-40°	567.1	16.8
40°-50°	591.1	17.5
50°-60°	547.2	16.2
60°-70°	442.1	13.1
70°-80°	269.6	8.0
80°-90°	55.7	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°	896.2	26.6
0°-40°	1463.3	43.4
0°-60°	2601.6	77.2
0°-90°	3369.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3369.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1161	1161	1161	1161	1161	
5°	1160	1157	1150	1158	1157	110
15°	1106	1106	1106	1122	1122	312
25°	1003	1009	1021	1046	1051	462
35°	863	877	905	938	947	541
45°	703	724	766	808	823	543
55°	533	560	616	664	678	477
65°	359	394	456	502	515	355
75°	187	228	284	288	285	196
85°	38	57	39	22	16	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1160.6	1160.6	1160.6	1160.6	1160.6
2.5°	1165.1	1161.4	1153.1	1161.4	1159.9
5°	1159.9	1156.9	1150.1	1158.4	1156.9
7.5°	1152.4	1149.4	1143.4	1153.1	1151.6
10°	1139.6	1138.1	1133.6	1144.9	1144.1
12.5°	1124.6	1123.8	1121.6	1134.3	1133.6
15°	1105.8	1106.5	1106.5	1121.6	1121.6
17.5°	1084.8	1086.3	1089.3	1105.8	1108.0
20°	1060.0	1063.0	1069.0	1087.8	1090.8
22.5°	1034.4	1036.7	1045.7	1068.2	1071.2
25°	1002.9	1008.9	1020.9	1046.4	1051.0
27.5°	972.8	978.1	994.6	1020.9	1028.4
30°	937.5	945.8	965.3	993.9	1002.1
32.5°	903.7	912.7	935.3	968.3	975.8
35°	863.1	876.7	905.2	938.3	947.3
37.5°	826.3	839.1	871.4	907.5	918.0
40°	785.8	801.5	838.4	876.7	887.2
42.5°	748.2	763.2	803.1	842.1	856.4
45°	703.1	724.2	765.5	808.3	823.3
47.5°	661.8	682.9	730.2	776.0	789.5
50°	620.5	643.0	692.6	739.9	753.5
52.5°	577.7	601.7	655.1	702.4	718.2
55°	532.6	560.4	616.0	664.1	678.3
57.5°	489.8	518.3	577.7	626.5	640.8
60°	447.7	477.0	537.9	584.4	599.5
62.5°	401.2	435.7	498.8	544.6	555.9
65°	359.1	394.4	456.0	501.8	514.6
67.5°	314.8	353.1	414.7	456.7	468.8
70°	272.7	312.5	371.9	410.9	416.2
72.5°	227.6	268.2	328.3	353.1	353.1
75°	187.1	228.4	284.0	288.5	284.7
77.5°	142.7	188.6	224.6	215.6	206.6
80°	102.9	148.0	164.5	148.0	136.0
82.5°	69.1	107.4	99.2	78.9	69.9
85°	38.3	57.1	39.1	21.8	15.8
87.5°	14.3	12.8	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)