

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: P312221

Luminaire Tested: **14FCZ2-35-UNV-L83050-CA125-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: P312221
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-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" 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: 3357.0 lumens
Efficiency: N/A
Efficacy: 113.8 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

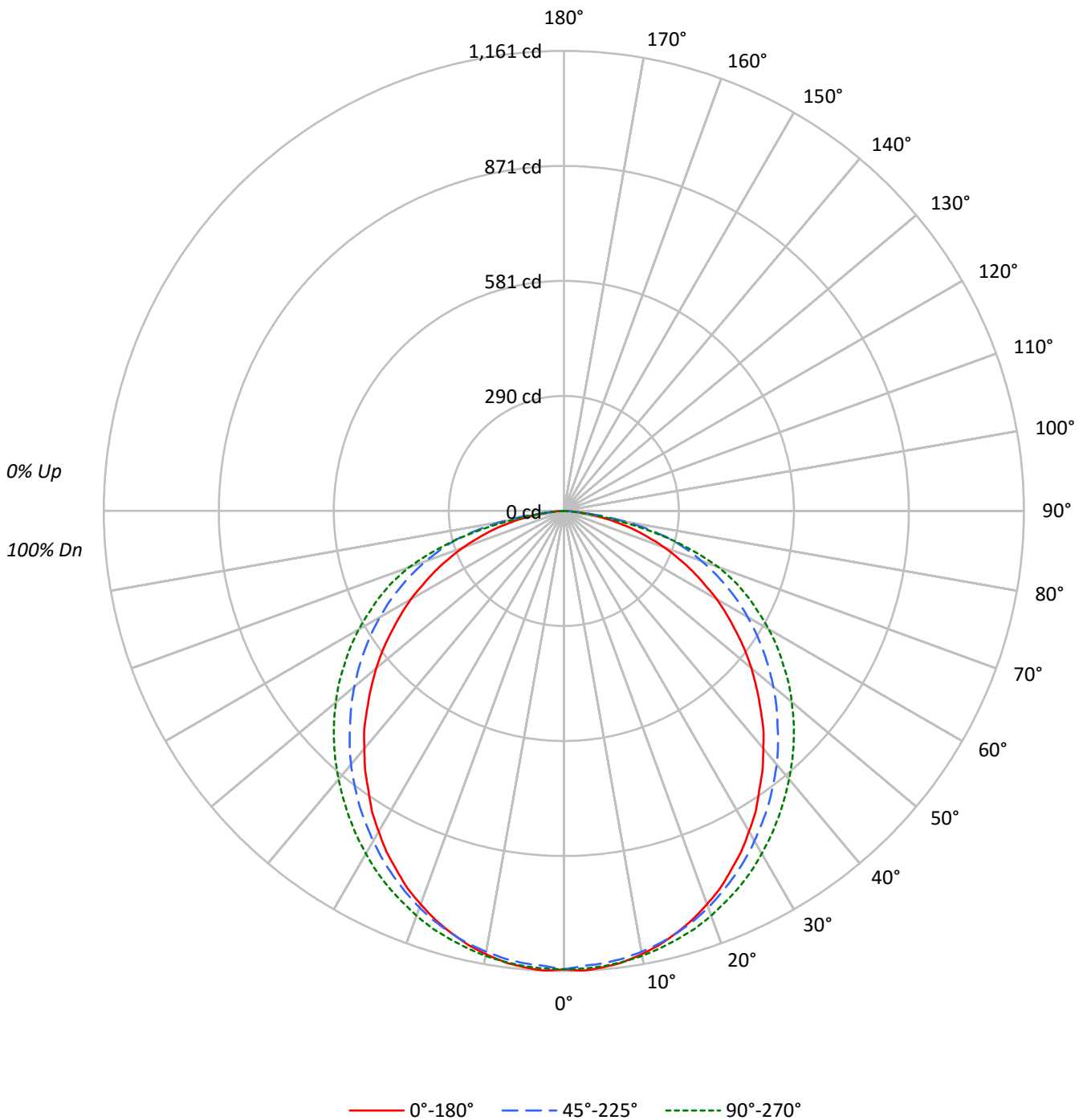
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3112	3112	3112
5°	3122	3096	3114
10°	3103	3086	3115
15°	3070	3072	3114
20°	3025	3050	3113
25°	2967	3021	3109
30°	2903	2989	3103
35°	2825	2963	3101
40°	2751	2935	3105
45°	2666	2903	3122
50°	2588	2889	3143
55°	2490	2880	3171
60°	2401	2885	3215
65°	2278	2893	3265
70°	2138	2915	3263
75°	1938	2941	2950
80°	1590	2540	2100
85°	1179	1201	485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.4	3.3
10°-20°	312.6	9.3
20°-30°	470.9	14.0
30°-40°	565.1	16.8
40°-50°	589.0	17.5
50°-60°	545.3	16.2
60°-70°	440.6	13.1
70°-80°	268.6	8.0
80°-90°	55.4	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°	893.0	26.6
0°-40°	1458.1	43.4
0°-60°	2592.3	77.2
0°-90°	3357.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3357.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1156	1153	1146	1154	1153	110
15°	1102	1103	1103	1118	1118	311
25°	999	1005	1017	1043	1047	461
35°	860	874	902	935	944	539
45°	701	722	763	805	820	542
55°	531	558	614	662	676	475
65°	358	393	454	500	513	354
75°	186	228	283	287	284	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°	1156.5	1156.5	1156.5	1156.5	1156.5
2.5°	1161.0	1157.2	1149.0	1157.2	1155.7
5°	1155.7	1152.8	1146.0	1154.3	1152.8
7.5°	1148.3	1145.3	1139.3	1149.0	1147.5
10°	1135.5	1134.0	1129.5	1140.8	1140.0
12.5°	1120.6	1119.8	1117.6	1130.3	1129.5
15°	1101.9	1102.6	1102.6	1117.6	1117.6
17.5°	1080.9	1082.4	1085.4	1101.9	1104.1
20°	1056.2	1059.2	1065.2	1083.9	1086.9
22.5°	1030.7	1033.0	1042.0	1064.4	1067.4
25°	999.3	1005.3	1017.3	1042.7	1047.2
27.5°	969.4	974.6	991.1	1017.3	1024.8
30°	934.2	942.4	961.9	990.3	998.6
32.5°	900.5	909.5	931.9	964.9	972.4
35°	860.1	873.5	902.0	934.9	943.9
37.5°	823.4	836.1	868.3	904.2	914.7
40°	783.0	798.7	835.4	873.5	884.0
42.5°	745.5	760.5	800.2	839.1	853.3
45°	700.6	721.6	762.8	805.4	820.4
47.5°	659.5	680.4	727.6	773.2	786.7
50°	618.3	640.8	690.2	737.3	750.8
52.5°	575.6	599.6	652.7	699.9	715.6
55°	530.7	558.4	613.8	661.7	675.9
57.5°	488.0	516.5	575.6	624.3	638.5
60°	446.1	475.3	536.0	582.4	597.3
62.5°	399.7	434.2	497.0	542.7	553.9
65°	357.8	393.0	454.4	500.0	512.8
67.5°	313.6	351.8	413.2	455.1	467.1
70°	271.7	311.4	370.5	409.5	414.7
72.5°	226.8	267.2	327.1	351.8	351.8
75°	186.4	227.6	282.9	287.4	283.7
77.5°	142.2	187.9	223.8	214.8	205.8
80°	102.6	147.5	163.9	147.5	135.5
82.5°	68.9	107.0	98.8	78.6	69.6
85°	38.2	56.9	38.9	21.7	15.7
87.5°	14.2	12.7	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)