

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: P312228

Luminaire Tested: **14FCZ2-35-UNV-L83050-CP125-W2A-U-4500K**

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: P312228
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-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 3489.0 lumens
Efficiency: N/A
Efficacy: 112.9 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

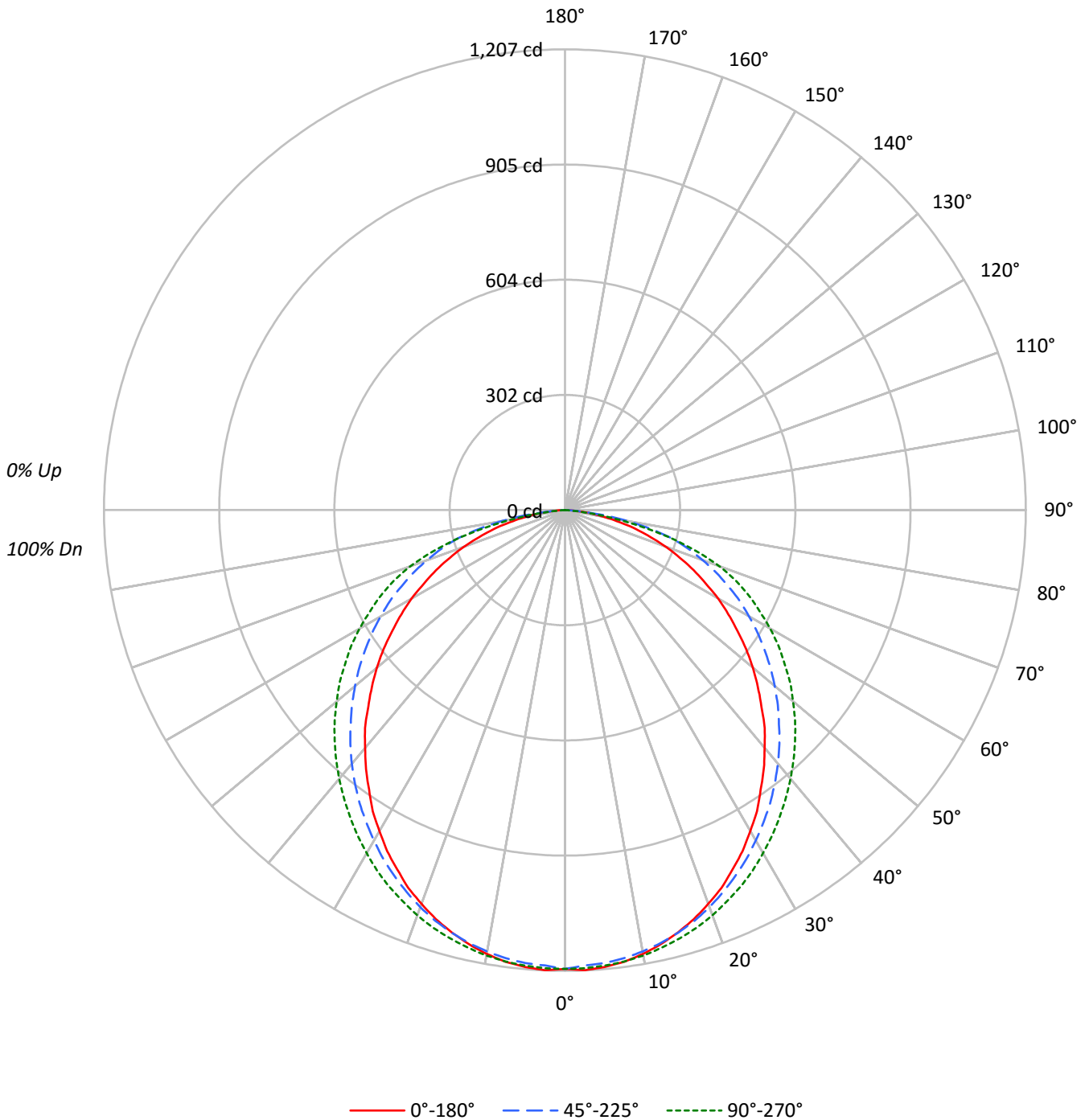
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3235	3235	3235
5°	3245	3217	3236
10°	3225	3208	3238
15°	3190	3193	3236
20°	3143	3170	3235
25°	3084	3139	3232
30°	3017	3106	3225
35°	2937	3080	3223
40°	2859	3050	3228
45°	2771	3017	3245
50°	2690	3003	3267
55°	2588	2993	3296
60°	2496	2998	3341
65°	2368	3007	3393
70°	2222	3030	3391
75°	2014	3058	3066
80°	1652	2641	2182
85°	1226	1250	503



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.7	3.3
10°-20°	324.9	9.3
20°-30°	489.4	14.0
30°-40°	587.3	16.8
40°-50°	612.2	17.5
50°-60°	566.7	16.2
60°-70°	457.9	13.1
70°-80°	279.2	8.0
80°-90°	57.7	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°	928.1	26.6
0°-40°	1515.4	43.4
0°-60°	2694.3	77.2
0°-90°	3489.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3489.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1202	1202	1202	1202	1202	
5°	1201	1198	1191	1200	1198	114
15°	1145	1146	1146	1162	1162	323
25°	1039	1045	1057	1084	1088	479
35°	894	908	938	972	981	560
45°	728	750	793	837	853	563
55°	552	580	638	688	702	494
65°	372	408	472	520	533	368
75°	194	236	294	299	295	203
85°	40	59	40	23	16	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1202.0	1202.0	1202.0	1202.0	1202.0
2.5°	1206.6	1202.7	1194.2	1202.7	1201.2
5°	1201.2	1198.1	1191.1	1199.6	1198.1
7.5°	1193.4	1190.3	1184.1	1194.2	1192.6
10°	1180.2	1178.6	1174.0	1185.6	1184.9
12.5°	1164.6	1163.9	1161.5	1174.7	1174.0
15°	1145.2	1146.0	1146.0	1161.5	1161.5
17.5°	1123.4	1125.0	1128.1	1145.2	1147.5
20°	1097.7	1100.8	1107.1	1126.5	1129.6
22.5°	1071.3	1073.6	1082.9	1106.3	1109.4
25°	1038.6	1044.8	1057.3	1083.7	1088.4
27.5°	1007.5	1012.9	1030.0	1057.3	1065.0
30°	970.9	979.5	999.7	1029.3	1037.8
32.5°	935.9	945.2	968.6	1002.8	1010.6
35°	893.9	907.9	937.5	971.7	981.0
37.5°	855.8	869.0	902.5	939.8	950.7
40°	813.8	830.1	868.2	907.9	918.8
42.5°	774.9	790.4	831.7	872.1	886.9
45°	728.2	750.0	792.8	837.1	852.7
47.5°	685.4	707.2	756.2	803.6	817.7
50°	642.6	665.9	717.3	766.3	780.3
52.5°	598.3	623.2	678.4	727.4	743.7
55°	551.6	580.4	637.9	687.7	702.5
57.5°	507.2	536.8	598.3	648.8	663.6
60°	463.7	494.0	557.0	605.3	620.8
62.5°	415.4	451.2	516.6	564.0	575.7
65°	371.9	408.4	472.2	519.7	532.9
67.5°	326.0	365.6	429.4	473.0	485.5
70°	282.4	323.6	385.1	425.6	431.0
72.5°	235.7	277.7	340.0	365.6	365.6
75°	193.7	236.5	294.1	298.7	294.9
77.5°	147.8	195.3	232.6	223.3	213.9
80°	106.6	153.3	170.4	153.3	140.8
82.5°	71.6	111.3	102.7	81.7	72.4
85°	39.7	59.1	40.5	22.6	16.3
87.5°	14.8	13.2	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)