

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: P312238

Luminaire Tested: **14FCZ2-35-UNV-L83050-CP250-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: P312238
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-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" 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: 3314.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

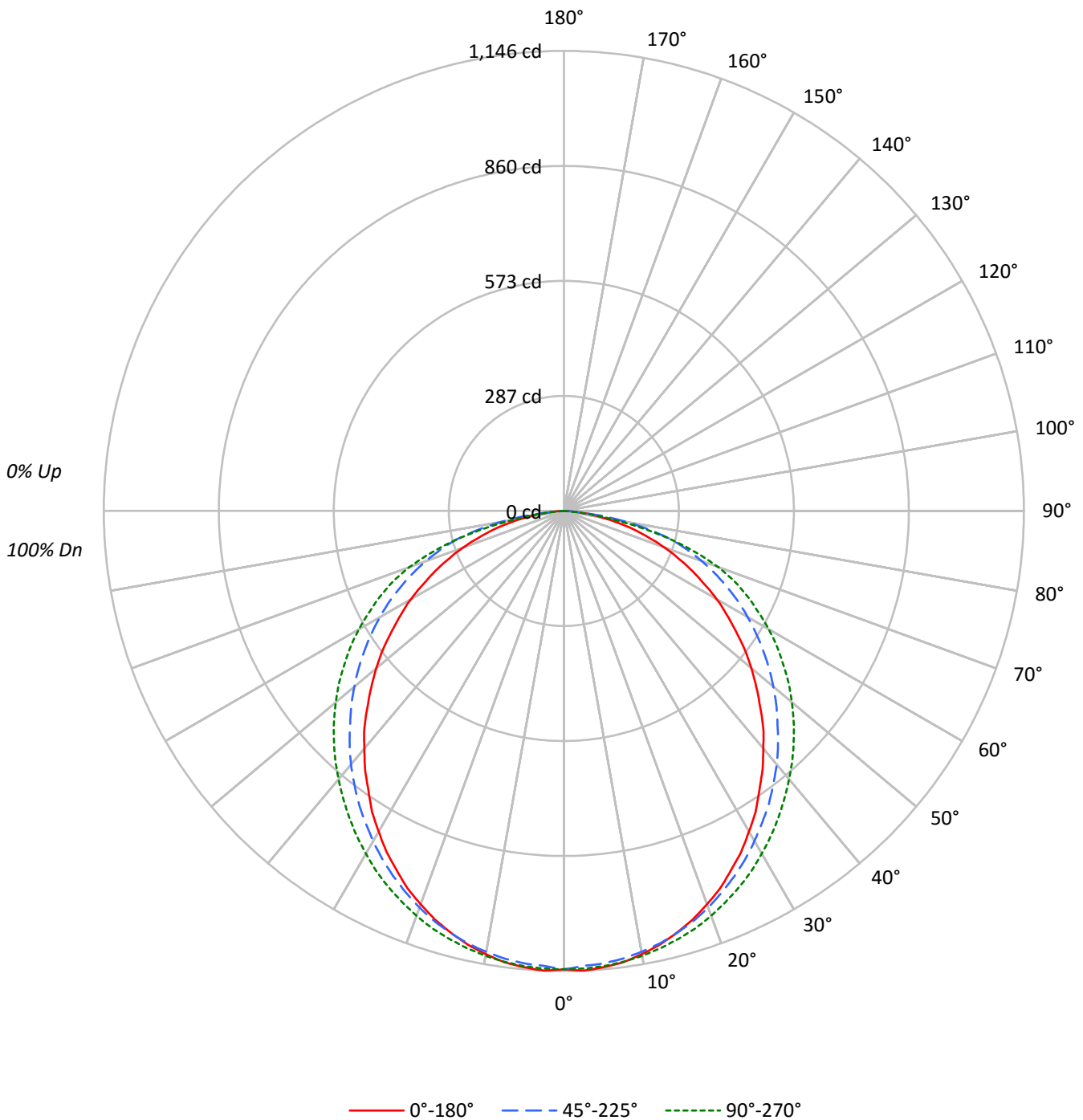
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3072	3072	3072
5°	3082	3056	3074
10°	3063	3047	3075
15°	3030	3032	3074
20°	2986	3011	3073
25°	2929	2982	3070
30°	2866	2951	3063
35°	2789	2925	3061
40°	2715	2897	3066
45°	2632	2866	3082
50°	2555	2852	3103
55°	2458	2843	3131
60°	2370	2848	3174
65°	2249	2856	3223
70°	2110	2878	3221
75°	1913	2904	2912
80°	1568	2507	2073
85°	1164	1186	479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.0	3.3
10°-20°	308.6	9.3
20°-30°	464.9	14.0
30°-40°	557.9	16.8
40°-50°	581.5	17.5
50°-60°	538.3	16.2
60°-70°	434.9	13.1
70°-80°	265.2	8.0
80°-90°	54.7	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°	881.5	26.6
0°-40°	1439.4	43.4
0°-60°	2559.2	77.2
0°-90°	3314.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3314.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1142	1142	1142	1142	1142	
5°	1141	1138	1131	1140	1138	108
15°	1088	1088	1088	1103	1103	307
25°	986	992	1004	1029	1034	455
35°	849	862	890	923	932	532
45°	692	712	753	795	810	535
55°	524	551	606	653	667	469
65°	353	388	448	494	506	349
75°	184	225	279	284	280	193
85°	38	56	38	21	16	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1141.7	1141.7	1141.7	1141.7	1141.7
2.5°	1146.1	1142.4	1134.3	1142.4	1140.9
5°	1140.9	1138.0	1131.3	1139.5	1138.0
7.5°	1133.6	1130.6	1124.7	1134.3	1132.8
10°	1121.0	1119.5	1115.1	1126.2	1125.4
12.5°	1106.2	1105.5	1103.3	1115.8	1115.1
15°	1087.7	1088.5	1088.5	1103.3	1103.3
17.5°	1067.0	1068.5	1071.5	1087.7	1090.0
20°	1042.7	1045.6	1051.5	1070.0	1073.0
22.5°	1017.5	1019.8	1028.6	1050.8	1053.7
25°	986.5	992.4	1004.2	1029.4	1033.8
27.5°	956.9	962.1	978.4	1004.2	1011.6
30°	922.2	930.3	949.6	977.6	985.8
32.5°	889.0	897.8	920.0	952.5	959.9
35°	849.1	862.4	890.4	923.0	931.8
37.5°	812.8	825.4	857.2	892.7	903.0
40°	772.9	788.5	824.7	862.4	872.7
42.5°	736.0	750.8	789.9	828.4	842.4
45°	691.7	712.4	753.0	795.1	809.9
47.5°	651.0	671.7	718.3	763.3	776.6
50°	610.4	632.5	681.3	727.9	741.2
52.5°	568.3	591.9	644.4	690.9	706.4
55°	523.9	551.3	605.9	653.2	667.3
57.5°	481.8	509.9	568.3	616.3	630.3
60°	440.4	469.2	529.1	574.9	589.7
62.5°	394.6	428.6	490.7	535.7	546.8
65°	353.2	388.0	448.5	493.6	506.2
67.5°	309.6	347.3	407.9	449.3	461.1
70°	268.2	307.4	365.8	404.2	409.4
72.5°	223.9	263.8	322.9	347.3	347.3
75°	184.0	224.6	279.3	283.8	280.1
77.5°	140.4	185.5	220.9	212.1	203.2
80°	101.2	145.6	161.8	145.6	133.8
82.5°	68.0	105.7	97.5	77.6	68.7
85°	37.7	56.2	38.4	21.4	15.5
87.5°	14.0	12.6	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)