

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: P312410

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-CP250-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: P312410
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L83050-S-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB 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: 3295.0 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

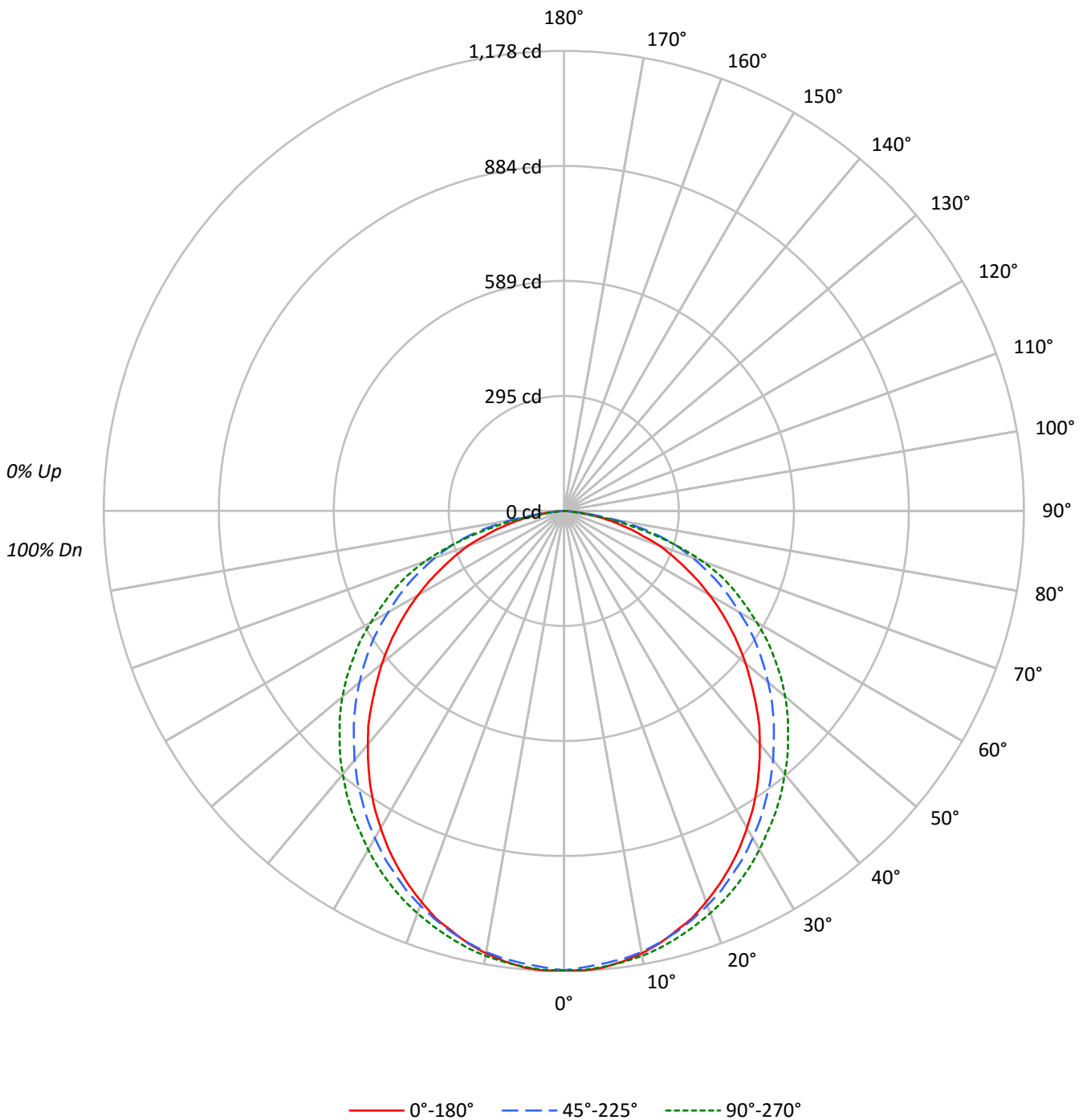
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3165	3165	3165
5°	3169	3142	3164
10°	3143	3134	3161
15°	3099	3109	3149
20°	3050	3078	3139
25°	2988	3041	3129
30°	2914	3005	3112
35°	2834	2962	3102
40°	2743	2927	3093
45°	2642	2891	3090
50°	2544	2859	3098
55°	2437	2836	3089
60°	2321	2796	3069
65°	2185	2788	3068
70°	2057	2763	2982
75°	1783	2701	2548
80°	1443	2177	1697
85°	957	756	503



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	3.4
10°-20°	316.1	9.6
20°-30°	474.1	14.4
30°-40°	565.6	17.2
40°-50°	584.7	17.7
50°-60°	533.8	16.2
60°-70°	420.1	12.7
70°-80°	244.5	7.4
80°-90°	45.0	1.4
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°	901.3	27.4
0°-40°	1466.8	44.5
0°-60°	2585.3	78.5
0°-90°	3295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3295.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1173	1170	1163	1173	1171	111
15°	1112	1114	1116	1130	1130	314
25°	1006	1011	1024	1049	1054	463
35°	863	874	902	936	944	539
45°	694	717	760	802	812	536
55°	520	547	604	649	658	465
65°	343	379	438	472	482	341
75°	172	212	260	255	245	182
85°	31	44	24	20	16	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1176.3	1176.3	1176.3	1176.3	1176.3
2.5°	1177.9	1174.6	1169.7	1177.9	1176.3
5°	1173.0	1169.7	1163.2	1173.0	1171.4
7.5°	1163.2	1159.9	1156.7	1166.5	1164.8
10°	1150.1	1148.5	1146.9	1158.3	1156.7
12.5°	1133.8	1133.8	1132.2	1145.2	1145.2
15°	1112.5	1114.2	1115.8	1130.5	1130.5
17.5°	1092.9	1091.3	1096.2	1112.5	1114.2
20°	1065.2	1068.4	1075.0	1094.6	1096.2
22.5°	1037.4	1040.7	1052.1	1071.7	1076.6
25°	1006.4	1011.3	1024.3	1048.8	1053.7
27.5°	973.7	980.2	998.2	1024.3	1029.2
30°	937.7	947.5	967.1	996.6	1001.5
32.5°	901.8	911.6	936.1	965.5	972.0
35°	862.6	874.0	901.8	936.1	944.3
37.5°	821.7	836.5	869.1	903.4	913.2
40°	780.9	797.2	833.2	869.1	880.6
42.5°	740.1	756.4	795.6	836.5	847.9
45°	694.3	717.2	759.7	802.1	811.9
47.5°	650.2	674.7	722.1	764.6	777.6
50°	607.7	632.2	682.9	727.0	740.1
52.5°	563.6	589.8	643.7	689.4	700.9
55°	519.5	547.3	604.5	648.6	658.4
57.5°	475.4	504.8	563.6	606.1	617.5
60°	431.3	462.3	519.5	562.0	570.2
62.5°	387.2	419.9	478.7	516.2	524.4
65°	343.1	379.0	437.8	472.1	481.9
67.5°	300.6	336.5	393.7	426.4	434.6
70°	261.4	294.1	351.2	375.7	379.0
72.5°	212.4	253.2	308.8	321.8	313.7
75°	171.5	212.4	259.8	254.9	245.1
77.5°	130.7	171.5	202.6	186.2	173.2
80°	93.1	134.0	140.5	116.0	109.5
82.5°	60.4	93.1	78.4	60.4	49.0
85°	31.0	44.1	24.5	19.6	16.3
87.5°	9.8	6.5	3.3	3.3	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)