

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: P312386

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-CP250-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: P312386
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: 14FCZ2-35-UNV-L83050-S-CP250-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB 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: 3159.0 lumens
Efficiency: N/A
Efficacy: 107.1 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

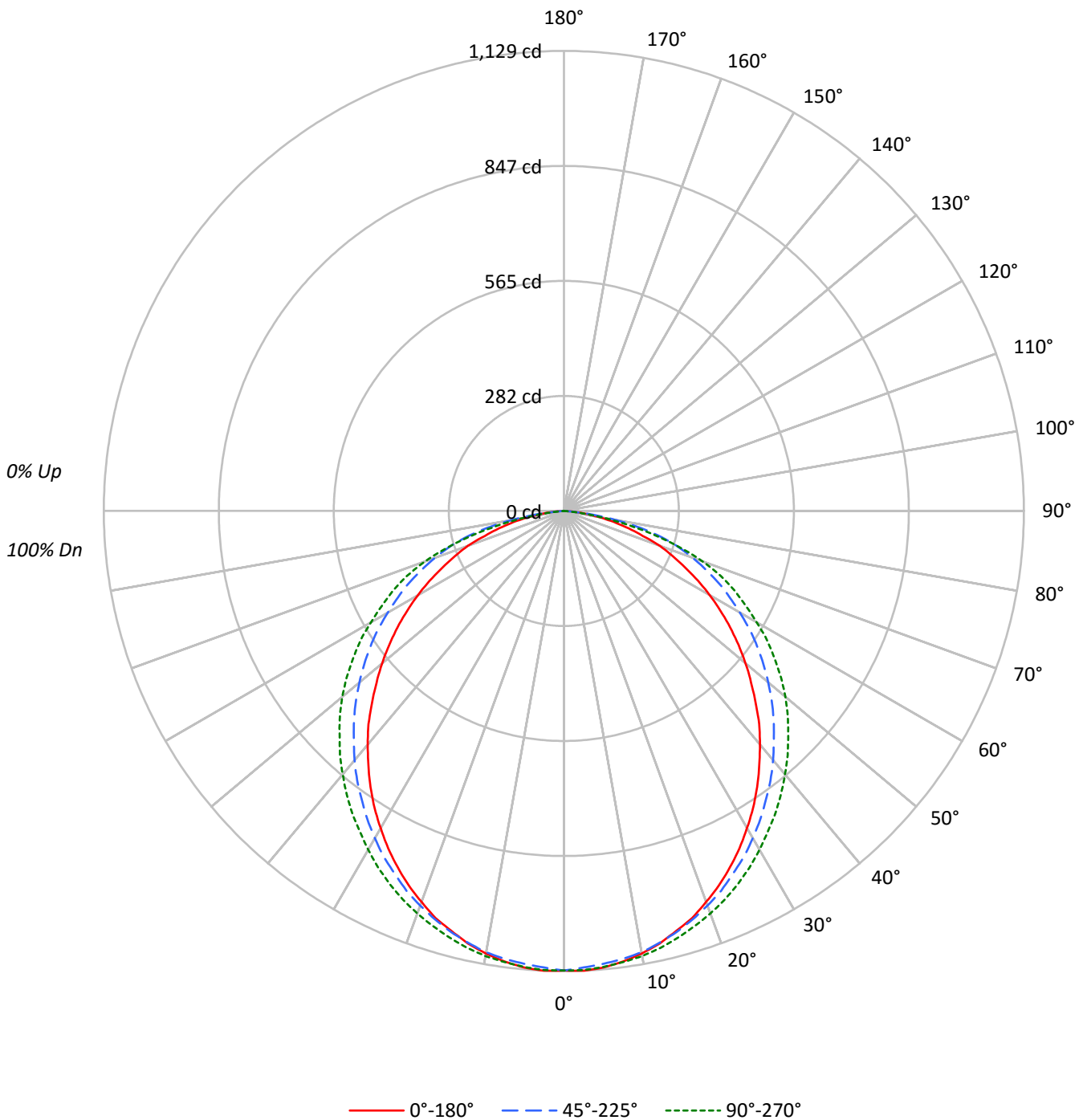
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3035	3035	3035
5°	3038	3012	3034
10°	3013	3004	3030
15°	2971	2980	3020
20°	2924	2951	3010
25°	2865	2916	2999
30°	2793	2881	2983
35°	2717	2840	2974
40°	2630	2806	2966
45°	2533	2772	2962
50°	2439	2741	2970
55°	2337	2719	2961
60°	2225	2681	2942
65°	2094	2673	2942
70°	1972	2649	2859
75°	1710	2589	2442
80°	1384	2087	1626
85°	920	726	485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.5	3.4
10°-20°	303.0	9.6
20°-30°	454.5	14.4
30°-40°	542.2	17.2
40°-50°	560.6	17.7
50°-60°	511.8	16.2
60°-70°	402.8	12.7
70°-80°	234.4	7.4
80°-90°	43.2	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°	864.1	27.4
0°-40°	1406.3	44.5
0°-60°	2478.6	78.5
0°-90°	3159.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3159.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1128	1128	1128	1128	1128	
5°	1125	1121	1115	1125	1123	107
15°	1067	1068	1070	1084	1084	301
25°	965	970	982	1006	1010	444
35°	827	838	865	898	905	517
45°	666	688	728	769	778	514
55°	498	525	580	622	631	445
65°	329	363	420	453	462	327
75°	164	204	249	244	235	175
85°	30	42	24	19	16	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1127.7	1127.7	1127.7	1127.7	1127.7
2.5°	1129.3	1126.1	1121.4	1129.3	1127.7
5°	1124.6	1121.4	1115.2	1124.6	1123.0
7.5°	1115.2	1112.0	1108.9	1118.3	1116.7
10°	1102.7	1101.1	1099.5	1110.5	1108.9
12.5°	1087.0	1087.0	1085.4	1098.0	1098.0
15°	1066.6	1068.2	1069.8	1083.9	1083.9
17.5°	1047.8	1046.3	1051.0	1066.6	1068.2
20°	1021.2	1024.3	1030.6	1049.4	1051.0
22.5°	994.6	997.7	1008.7	1027.5	1032.2
25°	964.8	969.5	982.0	1005.5	1010.2
27.5°	933.5	939.8	957.0	982.0	986.7
30°	899.0	908.4	927.2	955.4	960.1
32.5°	864.6	874.0	897.5	925.7	931.9
35°	827.0	838.0	864.6	897.5	905.3
37.5°	787.8	801.9	833.3	866.1	875.5
40°	748.7	764.3	798.8	833.3	844.2
42.5°	709.5	725.2	762.8	801.9	812.9
45°	665.7	687.6	728.3	769.0	778.4
47.5°	623.4	646.9	692.3	733.0	745.5
50°	582.7	606.1	654.7	697.0	709.5
52.5°	540.4	565.4	617.1	661.0	671.9
55°	498.1	524.7	579.5	621.8	631.2
57.5°	455.8	484.0	540.4	581.1	592.0
60°	413.5	443.3	498.1	538.8	546.6
62.5°	371.2	402.5	458.9	494.9	502.8
65°	328.9	363.4	419.8	452.7	462.0
67.5°	288.2	322.7	377.5	408.8	416.6
70°	250.6	281.9	336.7	360.2	363.4
72.5°	203.6	242.8	296.0	308.6	300.7
75°	164.5	203.6	249.0	244.3	234.9
77.5°	125.3	164.5	194.2	178.6	166.0
80°	89.3	128.4	134.7	111.2	104.9
82.5°	58.0	89.3	75.2	58.0	47.0
85°	29.8	42.3	23.5	18.8	15.7
87.5°	9.4	6.3	3.1	3.1	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)