

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: P312370

Luminaire Tested: **14FCZ2-35-UNV-L83050-S-CA125-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: P312370
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-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" ACRYLIC 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: 3205.0 lumens
Efficiency: N/A
Efficacy: 109.0 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

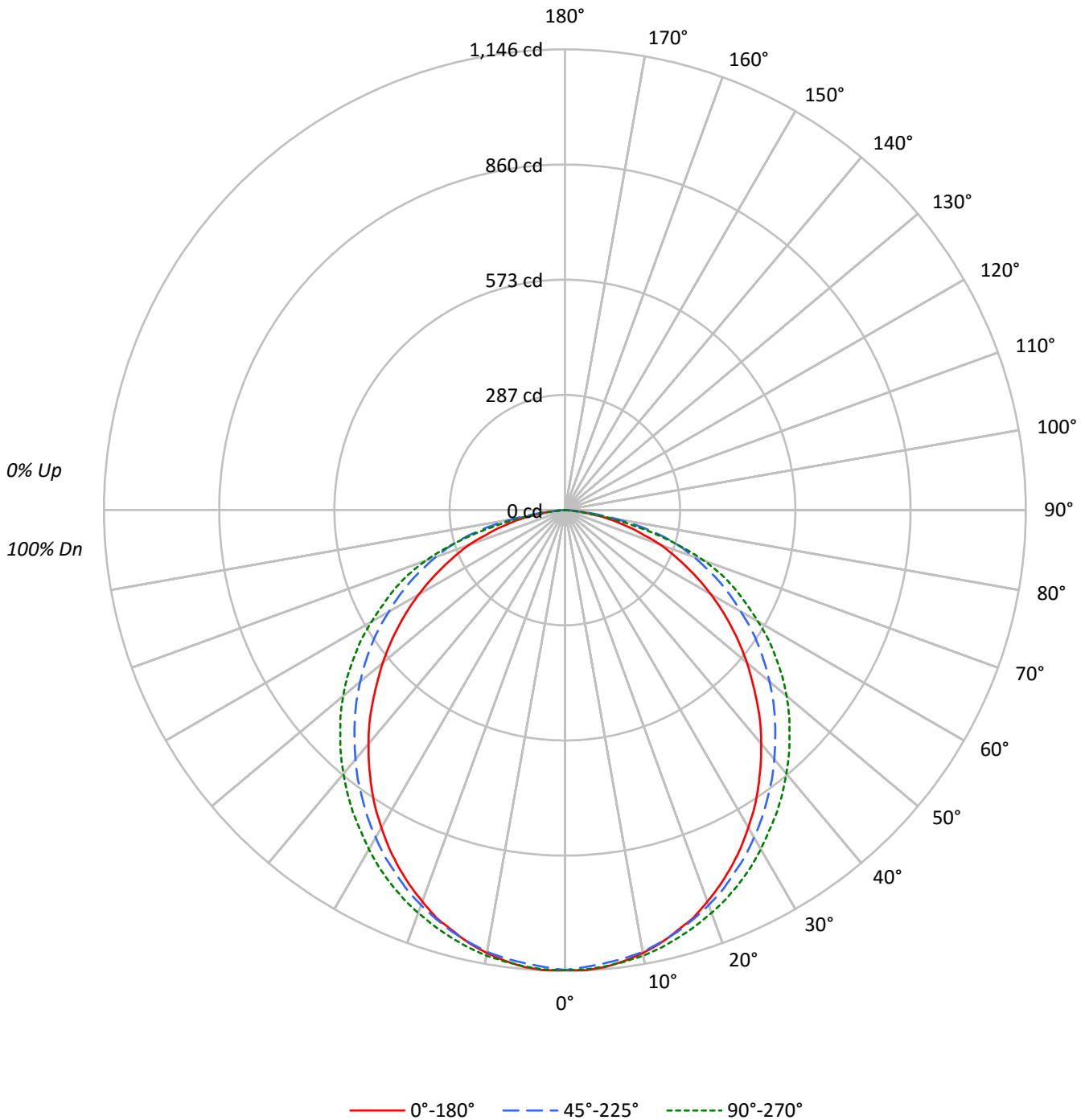
Input Watts (W): 29.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3079	3079	3079
5°	3082	3056	3078
10°	3057	3048	3074
15°	3015	3024	3063
20°	2967	2994	3054
25°	2907	2958	3043
30°	2834	2923	3027
35°	2756	2882	3017
40°	2668	2847	3009
45°	2570	2812	3006
50°	2475	2781	3013
55°	2371	2759	3004
60°	2258	2720	2985
65°	2125	2712	2985
70°	2001	2688	2901
75°	1735	2627	2479
80°	1404	2118	1650
85°	932	735	491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.0	3.4
10°-20°	307.4	9.6
20°-30°	461.2	14.4
30°-40°	550.1	17.2
40°-50°	568.7	17.7
50°-60°	519.2	16.2
60°-70°	408.6	12.7
70°-80°	237.9	7.4
80°-90°	43.8	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°	876.6	27.4
0°-40°	1426.7	44.5
0°-60°	2514.7	78.5
0°-90°	3205.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3205.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1144	1144	1144	1144	1144	
5°	1141	1138	1131	1141	1139	108
15°	1082	1084	1085	1100	1100	305
25°	979	984	996	1020	1025	451
35°	839	850	877	910	918	524
45°	675	698	739	780	790	522
55°	505	532	588	631	640	452
65°	334	369	426	459	469	331
75°	167	207	253	248	238	177
85°	30	43	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°	1144.1	1144.1	1144.1	1144.1	1144.1
2.5°	1145.7	1142.5	1137.8	1145.7	1144.1
5°	1141.0	1137.8	1131.4	1141.0	1139.4
7.5°	1131.4	1128.2	1125.1	1134.6	1133.0
10°	1118.7	1117.1	1115.5	1126.7	1125.1
12.5°	1102.8	1102.8	1101.2	1113.9	1113.9
15°	1082.2	1083.7	1085.3	1099.6	1099.6
17.5°	1063.1	1061.5	1066.3	1082.2	1083.7
20°	1036.1	1039.3	1045.6	1064.7	1066.3
22.5°	1009.1	1012.2	1023.4	1042.4	1047.2
25°	978.9	983.6	996.3	1020.2	1025.0
27.5°	947.1	953.4	970.9	996.3	1001.1
30°	912.1	921.7	940.7	969.3	974.1
32.5°	877.2	886.7	910.5	939.1	945.5
35°	839.0	850.2	877.2	910.5	918.5
37.5°	799.3	813.6	845.4	878.8	888.3
40°	759.6	775.5	810.4	845.4	856.5
42.5°	719.8	735.7	773.9	813.6	824.7
45°	675.4	697.6	738.9	780.2	789.8
47.5°	632.5	656.3	702.4	743.7	756.4
50°	591.1	615.0	664.2	707.1	719.8
52.5°	548.2	573.7	626.1	670.6	681.7
55°	505.3	532.3	588.0	630.9	640.4
57.5°	462.4	491.0	548.2	589.5	600.7
60°	419.5	449.7	505.3	546.6	554.6
62.5°	376.6	408.4	465.6	502.1	510.1
65°	333.7	368.7	425.9	459.2	468.8
67.5°	292.4	327.3	383.0	414.7	422.7
70°	254.3	286.0	341.7	365.5	368.7
72.5°	206.6	246.3	300.3	313.0	305.1
75°	166.9	206.6	252.7	247.9	238.4
77.5°	127.1	166.9	197.0	181.2	168.4
80°	90.6	130.3	136.7	112.8	106.5
82.5°	58.8	90.6	76.3	58.8	47.7
85°	30.2	42.9	23.8	19.1	15.9
87.5°	9.5	6.4	3.2	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)