

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: P312245

Luminaire Tested: **14FCZ2-39-UNV-L83050-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: P312245
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: 14FCZ2-39-UNV-L83050-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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: 3500.0 lumens
Efficiency: N/A
Efficacy: 105.4 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

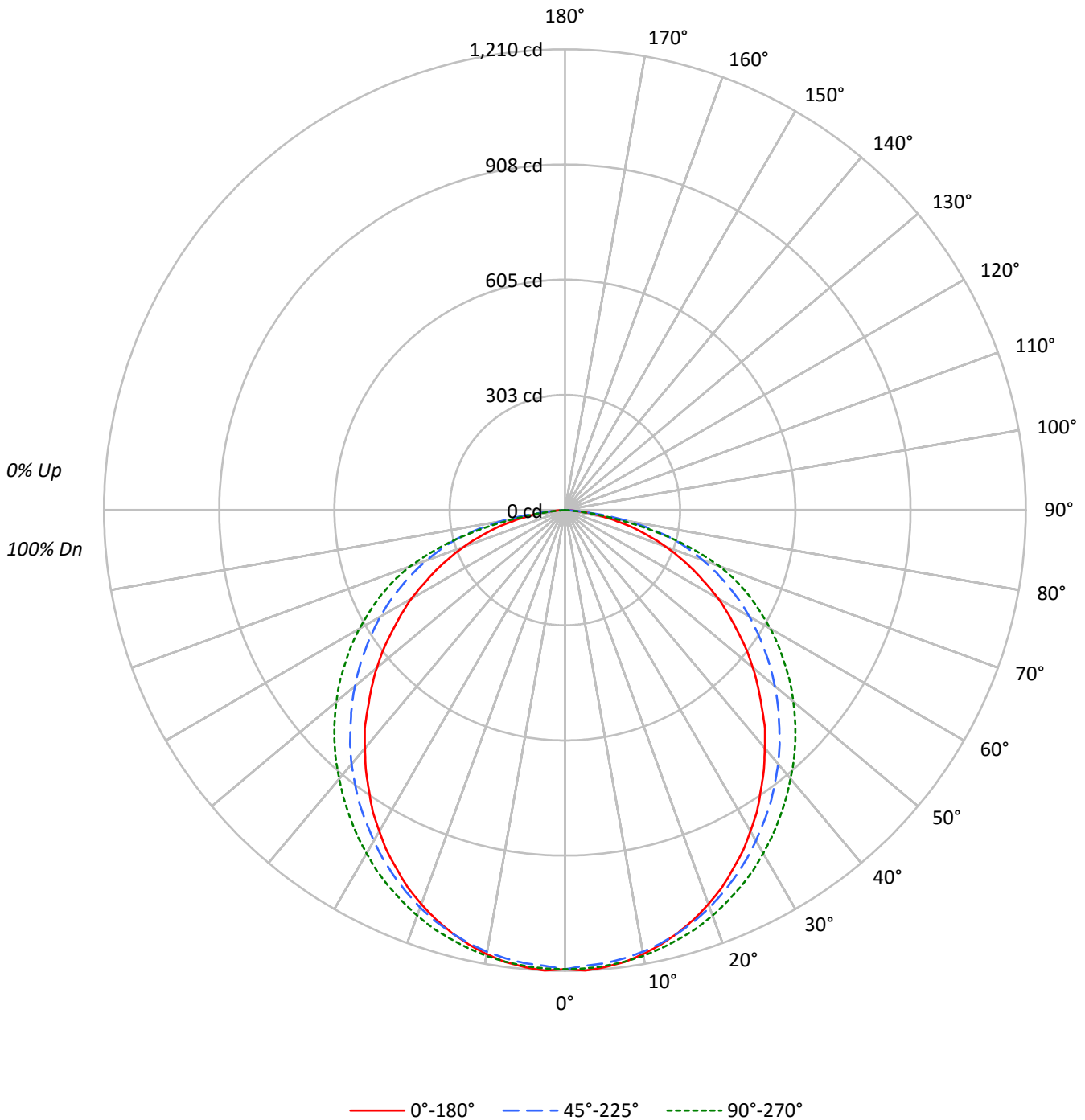
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3245	3245	3245
5°	3255	3227	3247
10°	3235	3218	3248
15°	3200	3203	3246
20°	3153	3180	3245
25°	3094	3149	3242
30°	3026	3116	3235
35°	2946	3089	3233
40°	2868	3060	3238
45°	2780	3027	3255
50°	2699	3013	3277
55°	2596	3003	3306
60°	2503	3007	3352
65°	2375	3016	3404
70°	2229	3039	3402
75°	2020	3067	3075
80°	1657	2648	2190
85°	1229	1254	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.1	3.3
10°-20°	325.9	9.3
20°-30°	491.0	14.0
30°-40°	589.2	16.8
40°-50°	614.1	17.5
50°-60°	568.5	16.2
60°-70°	459.3	13.1
70°-80°	280.1	8.0
80°-90°	57.8	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°	931.0	26.6
0°-40°	1520.2	43.4
0°-60°	2702.8	77.2
0°-90°	3500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1206	1206	1206	1206	1206	
5°	1205	1202	1195	1203	1202	114
15°	1149	1150	1150	1165	1165	324
25°	1042	1048	1061	1087	1092	480
35°	897	911	940	975	984	562
45°	730	752	795	840	855	565
55°	553	582	640	690	705	496
65°	373	410	474	521	535	369
75°	194	237	295	300	296	204
85°	40	59	41	23	16	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1205.8	1205.8	1205.8	1205.8	1205.8
2.5°	1210.4	1206.5	1198.0	1206.5	1205.0
5°	1205.0	1201.9	1194.8	1203.4	1201.9
7.5°	1197.2	1194.1	1187.8	1198.0	1196.4
10°	1183.9	1182.3	1177.7	1189.4	1188.6
12.5°	1168.3	1167.5	1165.2	1178.4	1177.7
15°	1148.8	1149.6	1149.6	1165.2	1165.2
17.5°	1126.9	1128.5	1131.6	1148.8	1151.1
20°	1101.2	1104.3	1110.5	1130.1	1133.2
22.5°	1074.6	1077.0	1086.4	1109.8	1112.9
25°	1041.9	1048.1	1060.6	1087.1	1091.8
27.5°	1010.7	1016.1	1033.3	1060.6	1068.4
30°	974.0	982.6	1002.9	1032.5	1041.1
32.5°	938.9	948.2	971.6	1006.0	1013.8
35°	896.7	910.8	940.4	974.8	984.1
37.5°	858.5	871.7	905.3	942.8	953.7
40°	816.3	832.7	871.0	910.8	921.7
42.5°	777.3	792.9	834.3	874.9	889.7
45°	730.5	752.3	795.3	839.7	855.3
47.5°	687.6	709.4	758.6	806.2	820.2
50°	644.6	668.0	719.6	768.7	782.8
52.5°	600.1	625.1	680.5	729.7	746.1
55°	553.3	582.2	640.0	689.9	704.7
57.5°	508.8	538.5	600.1	650.9	665.7
60°	465.1	495.6	558.8	607.2	622.8
62.5°	416.7	452.6	518.2	565.8	577.5
65°	373.0	409.7	473.7	521.3	534.6
67.5°	327.0	366.8	430.8	474.5	487.0
70°	283.3	324.7	386.3	426.9	432.4
72.5°	236.5	278.6	341.0	366.8	366.8
75°	194.3	237.3	295.0	299.7	295.8
77.5°	148.3	195.9	233.3	224.0	214.6
80°	106.9	153.7	170.9	153.7	141.3
82.5°	71.8	111.6	103.0	81.9	72.6
85°	39.8	59.3	40.6	22.6	16.4
87.5°	14.8	13.3	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)