

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: P312400

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-CP125-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: P312400
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-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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: 3468.0 lumens
Efficiency: N/A
Efficacy: 104.5 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

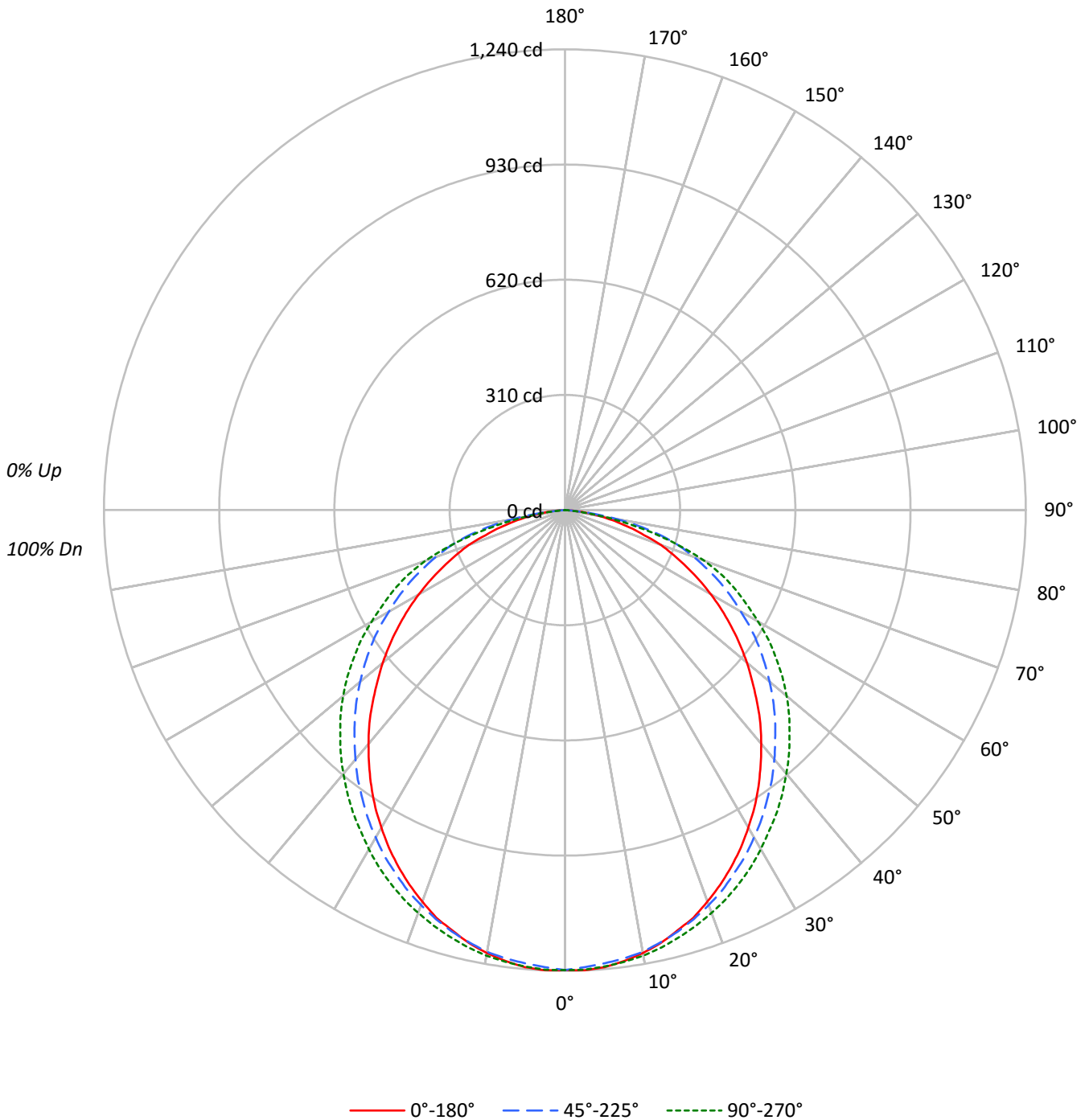
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3331	3331	3331
5°	3335	3307	3330
10°	3308	3298	3327
15°	3262	3272	3315
20°	3210	3240	3304
25°	3145	3201	3293
30°	3067	3163	3275
35°	2983	3118	3265
40°	2887	3080	3256
45°	2781	3043	3252
50°	2678	3009	3261
55°	2565	2985	3251
60°	2443	2943	3230
65°	2299	2934	3230
70°	2164	2909	3139
75°	1877	2843	2681
80°	1519	2292	1785
85°	1010	797	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.9	3.4
10°-20°	332.7	9.6
20°-30°	499.0	14.4
30°-40°	595.3	17.2
40°-50°	615.4	17.7
50°-60°	561.8	16.2
60°-70°	442.1	12.7
70°-80°	257.4	7.4
80°-90°	47.4	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°	948.6	27.4
0°-40°	1543.8	44.5
0°-60°	2721.1	78.5
0°-90°	3468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3468.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1238	1238	1238	1238	1238	
5°	1235	1231	1224	1235	1233	117
15°	1171	1173	1174	1190	1190	330
25°	1059	1064	1078	1104	1109	488
35°	908	920	949	985	994	567
45°	731	755	800	844	855	564
55°	547	576	636	683	693	489
65°	361	399	461	497	507	359
75°	180	224	273	268	258	192
85°	33	46	26	21	17	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1238.0	1238.0	1238.0	1238.0	1238.0
2.5°	1239.7	1236.3	1231.1	1239.7	1238.0
5°	1234.6	1231.1	1224.3	1234.6	1232.9
7.5°	1224.3	1220.8	1217.4	1227.7	1226.0
10°	1210.5	1208.8	1207.1	1219.1	1217.4
12.5°	1193.3	1193.3	1191.6	1205.3	1205.3
15°	1171.0	1172.7	1174.4	1189.9	1189.9
17.5°	1150.3	1148.6	1153.8	1171.0	1172.7
20°	1121.1	1124.5	1131.4	1152.0	1153.8
22.5°	1091.9	1095.3	1107.3	1128.0	1133.1
25°	1059.2	1064.4	1078.1	1103.9	1109.1
27.5°	1024.8	1031.7	1050.6	1078.1	1083.3
30°	987.0	997.3	1017.9	1048.9	1054.0
32.5°	949.1	959.5	985.3	1016.2	1023.1
35°	907.9	919.9	949.1	985.3	993.9
37.5°	864.9	880.4	914.8	950.9	961.2
40°	821.9	839.1	876.9	914.8	926.8
42.5°	778.9	796.1	837.4	880.4	892.4
45°	730.8	754.8	799.6	844.3	854.6
47.5°	684.3	710.1	760.0	804.7	818.5
50°	639.6	665.4	718.7	765.2	778.9
52.5°	593.2	620.7	677.5	725.6	737.7
55°	546.8	576.0	636.2	682.6	692.9
57.5°	500.4	531.3	593.2	637.9	650.0
60°	453.9	486.6	546.8	591.5	600.1
62.5°	407.5	441.9	503.8	543.4	551.9
65°	361.1	398.9	460.8	496.9	507.2
67.5°	316.4	354.2	414.4	448.8	457.4
70°	275.1	309.5	369.7	395.5	398.9
72.5°	223.5	266.5	325.0	338.7	330.1
75°	180.5	223.5	273.4	268.2	257.9
77.5°	137.6	180.5	213.2	196.0	182.3
80°	98.0	141.0	147.9	122.1	115.2
82.5°	63.6	98.0	82.5	63.6	51.6
85°	32.7	46.4	25.8	20.6	17.2
87.5°	10.3	6.9	3.4	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)