

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: P313025

Luminaire Tested: **22FCZ2-44HE-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: P313025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L83050-S-CP125-W2A-U-3000K
Description: 2'X2' 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

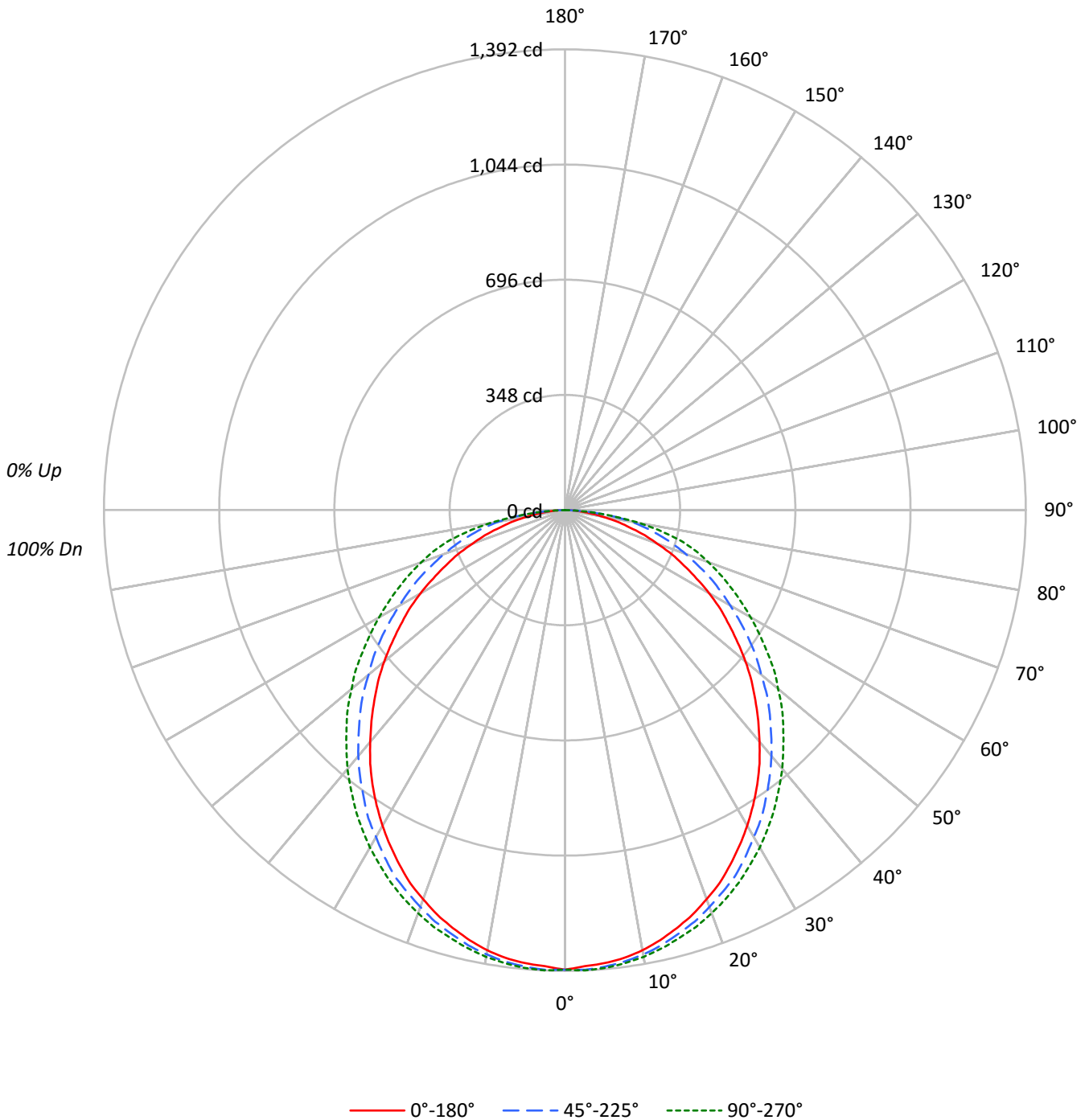
Lumens per Lamp: N/A
Luminaire Lumens: 3875.0 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 37.1
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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	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	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3736	3736	3736
5°	3712	3741	3751
10°	3691	3725	3745
15°	3642	3692	3727
20°	3583	3655	3712
25°	3511	3618	3688
30°	3421	3545	3657
35°	3326	3481	3623
40°	3214	3411	3588
45°	3096	3330	3550
50°	2982	3239	3520
55°	2842	3181	3495
60°	2715	3104	3484
65°	2533	3085	3522
70°	2333	3058	3627
75°	2105	3101	3816
80°	1821	3194	3586
85°	1507	2680	2680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.3	3.4
10°-20°	373.7	9.6
20°-30°	559.1	14.4
30°-40°	662.2	17.1
40°-50°	674.8	17.4
50°-60°	604.8	15.6
60°-70°	473.5	12.2
70°-80°	305.3	7.9
80°-90°	90.2	2.3
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°	1064.1	27.5
0°-40°	1726.3	44.5
0°-60°	3005.9	77.6
0°-90°	3875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3875.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1374	1378	1385	1387	1388	130
15°	1307	1314	1325	1336	1338	369
25°	1182	1193	1219	1235	1242	544
35°	1012	1025	1060	1092	1103	633
45°	814	832	875	920	933	628
55°	606	626	678	725	745	543
65°	398	421	484	532	553	395
75°	202	233	298	349	367	217
85°	49	67	87	87	87	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1388.5	1388.5	1388.5	1388.5	1388.5
2.5°	1379.5	1383.1	1390.3	1392.1	1392.1
5°	1374.1	1377.7	1384.9	1386.7	1388.5
7.5°	1365.0	1366.8	1375.9	1379.5	1381.3
10°	1350.6	1354.2	1363.2	1368.6	1370.5
12.5°	1330.7	1336.1	1346.9	1354.2	1356.0
15°	1307.2	1314.4	1325.3	1336.1	1337.9
17.5°	1281.9	1289.1	1303.6	1316.2	1319.8
20°	1251.1	1260.2	1276.4	1290.9	1296.3
22.5°	1220.4	1227.6	1247.5	1265.6	1271.0
25°	1182.4	1193.3	1218.6	1234.9	1242.1
27.5°	1142.6	1155.3	1180.6	1202.3	1209.5
30°	1101.1	1113.7	1140.8	1168.0	1177.0
32.5°	1057.7	1072.1	1104.7	1131.8	1140.8
35°	1012.5	1025.1	1059.5	1092.0	1102.9
37.5°	965.5	976.3	1016.1	1050.4	1061.3
40°	914.8	929.3	970.9	1010.7	1021.5
42.5°	864.2	880.5	922.1	965.5	976.3
45°	813.6	831.7	875.1	920.3	932.9
47.5°	764.8	779.2	828.1	871.4	889.5
50°	712.3	726.8	773.8	822.6	840.7
52.5°	658.1	678.0	728.6	775.6	797.3
55°	605.7	625.6	678.0	725.0	744.9
57.5°	556.9	573.1	627.4	676.2	696.1
60°	504.4	518.9	576.7	629.2	647.3
62.5°	448.4	470.1	529.7	578.6	600.3
65°	397.8	421.3	484.5	531.5	553.2
67.5°	350.7	372.4	433.9	484.5	508.0
70°	296.5	325.4	388.7	439.3	461.0
72.5°	253.1	278.4	343.5	394.1	417.6
75°	202.5	233.2	298.3	348.9	367.0
77.5°	160.9	191.6	253.1	292.9	301.9
80°	117.5	148.3	206.1	226.0	231.4
82.5°	79.6	108.5	148.3	153.7	155.5
85°	48.8	66.9	86.8	86.8	86.8
87.5°	23.5	27.1	30.7	28.9	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)