

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: P308850

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP125-W2A-U-5700K**

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: P308850
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-L82765-CP125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 4054.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

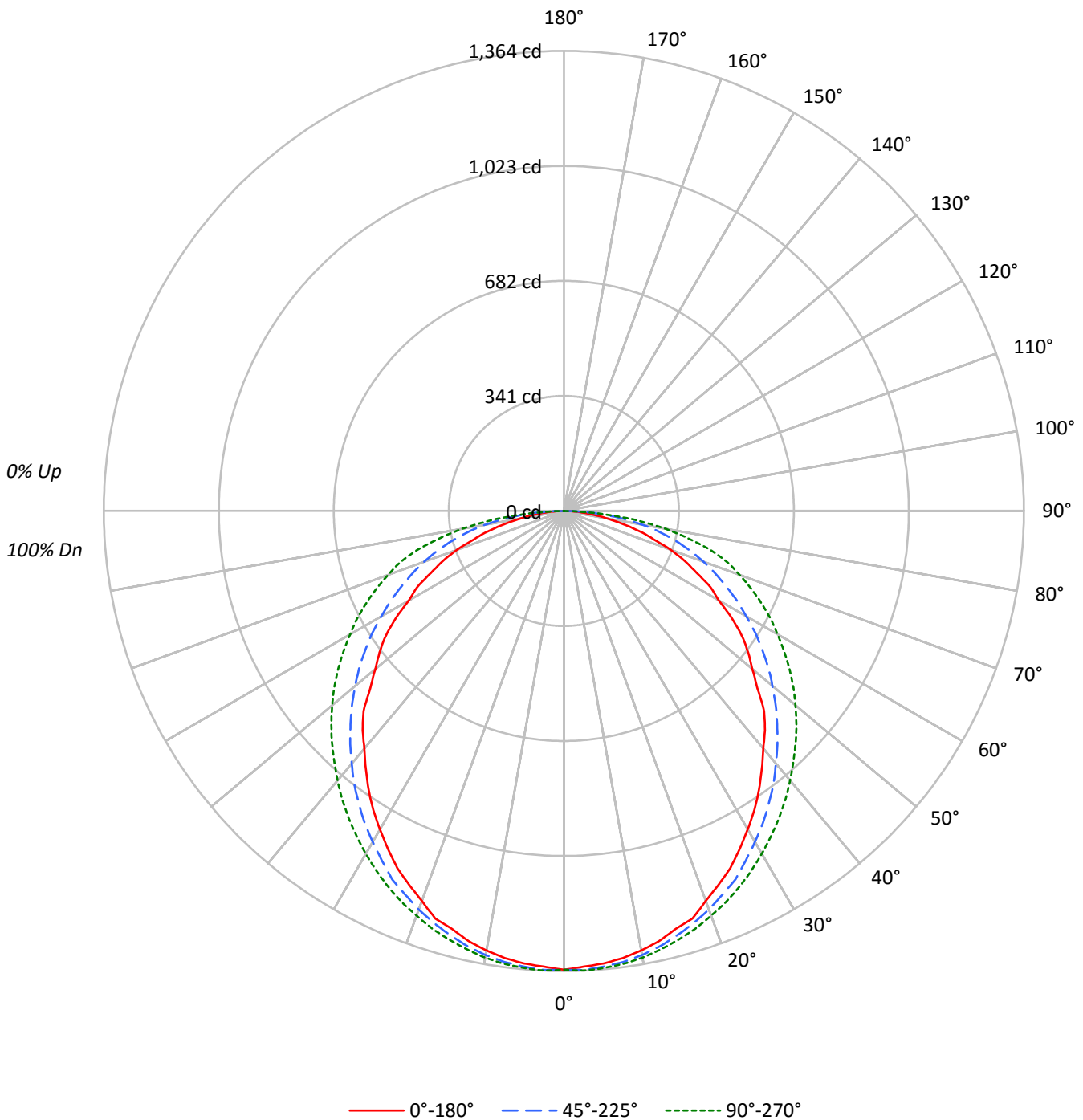
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3660	3660	3660
5°	3638	3664	3674
10°	3616	3653	3674
15°	3573	3627	3665
20°	3523	3601	3656
25°	3468	3578	3653
30°	3388	3521	3648
35°	3315	3480	3652
40°	3231	3435	3667
45°	3197	3404	3699
50°	3054	3379	3753
55°	3022	3368	3833
60°	2851	3363	3937
65°	2767	3385	4114
70°	2656	3465	4366
75°	2420	3570	4701
80°	2075	3699	4751
85°	1677	3535	4072



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.7	3.2
10°-20°	367.2	9.1
20°-30°	552.6	13.6
30°-40°	663.2	16.4
40°-50°	693.2	17.1
50°-60°	646.0	15.9
60°-70°	529.8	13.1
70°-80°	357.0	8.8
80°-90°	116.3	2.9
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°	1048.5	25.9
0°-40°	1711.7	42.2
0°-60°	3050.9	75.3
0°-90°	4054.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4054.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1360	1360	1360	1360	1360	
5°	1347	1350	1356	1358	1360	128
15°	1282	1290	1302	1314	1316	362
25°	1168	1176	1205	1222	1230	537
35°	1009	1022	1059	1096	1112	631
45°	840	846	894	949	972	642
55°	644	656	718	786	817	571
65°	435	454	532	609	646	432
75°	233	258	343	421	452	245
85°	54	78	114	134	132	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1360.2	1360.2	1360.2	1360.2	1360.2
2.5°	1352.4	1356.3	1362.1	1364.0	1364.0
5°	1346.6	1350.4	1356.3	1358.2	1360.2
7.5°	1336.9	1340.7	1348.5	1352.4	1354.3
10°	1323.3	1327.2	1336.9	1342.7	1344.6
12.5°	1305.8	1309.7	1321.3	1329.1	1331.0
15°	1282.5	1290.3	1301.9	1313.6	1315.5
17.5°	1267.0	1265.1	1280.6	1294.2	1298.1
20°	1230.2	1239.9	1257.3	1272.8	1276.7
22.5°	1199.1	1206.9	1230.2	1247.6	1255.4
25°	1168.1	1175.8	1204.9	1222.4	1230.2
27.5°	1129.3	1140.9	1168.1	1193.3	1203.0
30°	1090.4	1102.1	1133.1	1162.2	1173.9
32.5°	1051.6	1065.2	1098.2	1129.3	1142.8
35°	1009.0	1022.5	1059.4	1096.3	1111.8
37.5°	964.3	981.8	1020.6	1061.3	1078.8
40°	919.7	937.2	977.9	1024.5	1043.9
42.5°	882.8	890.6	937.2	987.6	1007.0
45°	840.2	846.0	894.5	948.8	972.1
47.5°	778.1	799.4	851.8	911.9	935.2
50°	729.6	752.8	807.2	871.2	896.4
52.5°	688.8	704.3	764.5	828.5	857.6
55°	644.2	655.8	717.9	785.8	816.9
57.5°	589.9	611.2	673.3	743.1	774.2
60°	529.7	556.9	624.8	700.4	731.5
62.5°	490.9	506.4	580.2	655.8	690.7
65°	434.6	454.0	531.6	609.3	646.1
67.5°	388.1	407.5	487.0	564.6	601.5
70°	337.6	357.0	440.4	518.1	554.9
72.5°	279.4	306.6	393.9	471.5	510.3
75°	232.8	258.1	343.4	421.0	452.1
77.5°	180.4	213.4	293.0	357.0	380.3
80°	133.9	166.9	238.7	285.2	306.6
82.5°	91.2	124.2	178.5	213.4	225.1
85°	54.3	77.6	114.5	133.9	131.9
87.5°	25.2	33.0	46.6	46.6	44.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)