

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: P312887

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CP250-W2A-U-4000K**

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: P312887
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-L83050-CP250-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4000K 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: 3878.0 lumens
Efficiency: N/A
Efficacy: 101.8 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

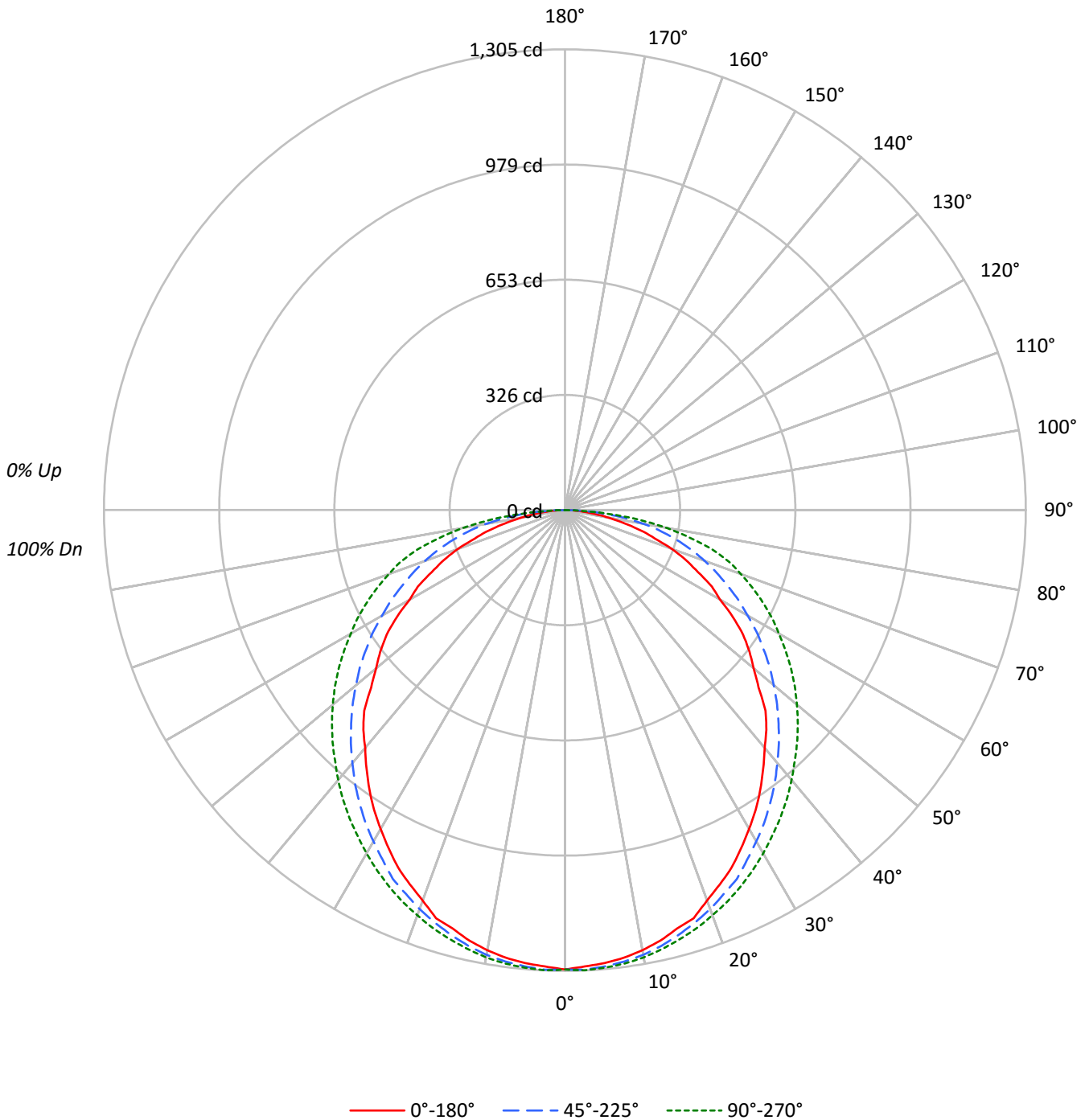
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3501	3501	3501
5°	3479	3505	3515
10°	3459	3494	3515
15°	3418	3470	3506
20°	3370	3444	3497
25°	3318	3422	3494
30°	3241	3368	3489
35°	3171	3329	3494
40°	3091	3286	3508
45°	3059	3256	3539
50°	2922	3232	3590
55°	2891	3222	3666
60°	2727	3217	3766
65°	2648	3238	3936
70°	2541	3315	4176
75°	2315	3415	4497
80°	1985	3538	4545
85°	1606	3381	3896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	3.2
10°-20°	351.2	9.1
20°-30°	528.6	13.6
30°-40°	634.4	16.4
40°-50°	663.1	17.1
50°-60°	618.0	15.9
60°-70°	506.8	13.1
70°-80°	341.5	8.8
80°-90°	111.2	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°	1002.9	25.9
0°-40°	1637.4	42.2
0°-60°	2918.4	75.3
0°-90°	3878.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3878.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1301	1301	1301	1301	1301	
5°	1288	1292	1297	1299	1301	122
15°	1227	1234	1245	1257	1258	347
25°	1117	1125	1153	1169	1177	514
35°	965	978	1013	1049	1064	603
45°	804	809	856	908	930	614
55°	616	627	687	752	781	546
65°	416	434	509	583	618	414
75°	223	247	328	403	432	234
85°	52	74	110	128	126	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1301.1	1301.1	1301.1	1301.1	1301.1
2.5°	1293.7	1297.4	1303.0	1304.8	1304.8
5°	1288.1	1291.8	1297.4	1299.2	1301.1
7.5°	1278.8	1282.5	1290.0	1293.7	1295.5
10°	1265.8	1269.5	1278.8	1284.4	1286.3
12.5°	1249.1	1252.8	1264.0	1271.4	1273.3
15°	1226.9	1234.3	1245.4	1256.6	1258.4
17.5°	1212.0	1210.2	1225.0	1238.0	1241.7
20°	1176.7	1186.0	1202.7	1217.6	1221.3
22.5°	1147.0	1154.5	1176.7	1193.5	1200.9
25°	1117.4	1124.8	1152.6	1169.3	1176.7
27.5°	1080.2	1091.4	1117.4	1141.5	1150.8
30°	1043.1	1054.2	1083.9	1111.8	1122.9
32.5°	1006.0	1019.0	1050.5	1080.2	1093.2
35°	965.2	978.1	1013.4	1048.7	1063.5
37.5°	922.5	939.2	976.3	1015.3	1032.0
40°	879.8	896.5	935.5	980.0	998.6
42.5°	844.5	851.9	896.5	944.7	963.3
45°	803.7	809.2	855.6	907.6	929.9
47.5°	744.3	764.7	814.8	872.4	894.6
50°	697.9	720.2	772.1	833.4	857.5
52.5°	658.9	673.8	731.3	792.5	820.4
55°	616.2	627.4	686.7	751.7	781.4
57.5°	564.2	584.7	644.1	710.9	740.6
60°	506.7	532.7	597.7	670.0	699.7
62.5°	469.6	484.4	555.0	627.4	660.8
65°	415.8	434.3	508.6	582.8	618.1
67.5°	371.2	389.8	465.9	540.1	575.4
70°	323.0	341.5	421.3	495.6	530.8
72.5°	267.3	293.3	376.8	451.0	488.1
75°	222.7	246.9	328.5	402.8	432.5
77.5°	172.6	204.2	280.3	341.5	363.8
80°	128.1	159.6	228.3	272.8	293.3
82.5°	87.2	118.8	170.8	204.2	215.3
85°	52.0	74.2	109.5	128.1	126.2
87.5°	24.1	31.6	44.5	44.5	42.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)