

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: P312878

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CP125-W2A-U-4500K**

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: P312878
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-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 4121.0 lumens
Efficiency: N/A
Efficacy: 105.7 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

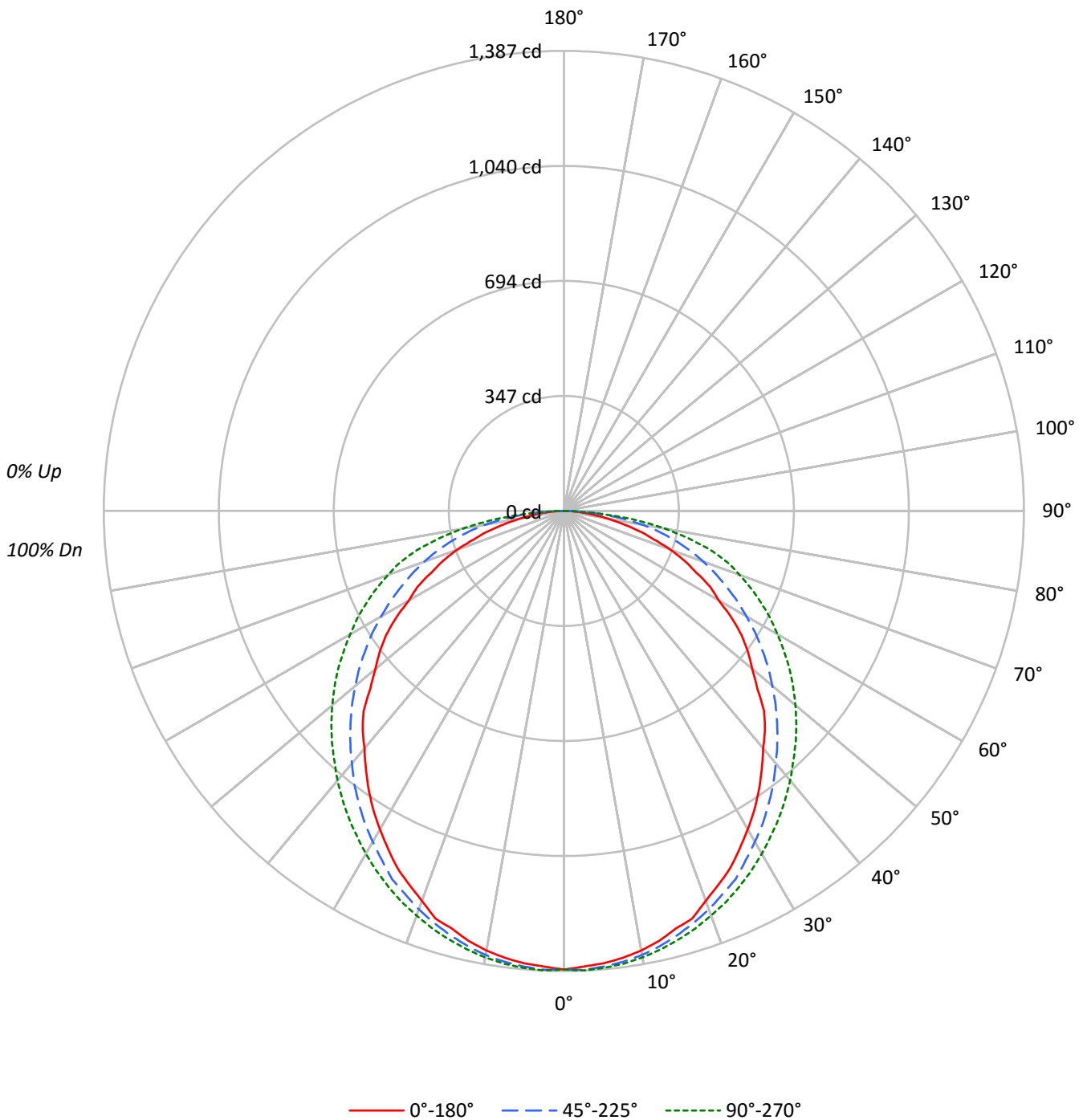
Input Watts (W): 39
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3721	3721	3721
5°	3697	3724	3735
10°	3676	3713	3735
15°	3632	3687	3726
20°	3581	3660	3716
25°	3526	3637	3713
30°	3444	3579	3708
35°	3369	3538	3713
40°	3284	3492	3727
45°	3250	3460	3761
50°	3105	3435	3815
55°	3072	3424	3896
60°	2898	3418	4002
65°	2813	3441	4182
70°	2700	3522	4438
75°	2461	3630	4779
80°	2109	3760	4829
85°	1704	3594	4140



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.8	3.2
10°-20°	373.2	9.1
20°-30°	561.7	13.6
30°-40°	674.2	16.4
40°-50°	704.6	17.1
50°-60°	656.7	15.9
60°-70°	538.6	13.1
70°-80°	362.9	8.8
80°-90°	118.2	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°	1065.8	25.9
0°-40°	1740.0	42.2
0°-60°	3101.3	75.3
0°-90°	4121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4121.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1383	1383	1383	1383	1383	
5°	1369	1373	1379	1381	1383	130
15°	1304	1312	1324	1335	1337	368
25°	1187	1195	1225	1243	1250	546
35°	1026	1039	1077	1114	1130	641
45°	854	860	909	964	988	652
55°	655	667	730	799	830	580
65°	442	462	540	619	657	439
75°	237	262	349	428	460	249
85°	55	79	116	136	134	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1382.6	1382.6	1382.6	1382.6	1382.6
2.5°	1374.7	1378.7	1384.6	1386.6	1386.6
5°	1368.8	1372.8	1378.7	1380.7	1382.6
7.5°	1359.0	1362.9	1370.8	1374.7	1376.7
10°	1345.2	1349.1	1359.0	1364.9	1366.9
12.5°	1327.4	1331.3	1343.2	1351.1	1353.0
15°	1303.7	1311.6	1323.5	1335.3	1337.3
17.5°	1288.0	1286.0	1301.8	1315.6	1319.5
20°	1250.5	1260.3	1278.1	1293.9	1297.8
22.5°	1218.9	1226.8	1250.5	1268.2	1276.1
25°	1187.4	1195.3	1224.8	1242.6	1250.5
27.5°	1147.9	1159.8	1187.4	1213.0	1222.9
30°	1108.5	1120.3	1151.9	1181.4	1193.3
32.5°	1069.0	1082.8	1116.4	1147.9	1161.7
35°	1025.6	1039.4	1076.9	1114.4	1130.2
37.5°	980.3	998.0	1037.5	1078.9	1096.6
40°	934.9	952.7	994.1	1041.4	1061.1
42.5°	897.4	905.3	952.7	1003.9	1023.7
45°	854.0	860.0	909.3	964.5	988.2
47.5°	790.9	812.6	865.9	927.0	950.7
50°	741.6	765.3	820.5	885.6	911.2
52.5°	700.2	716.0	777.1	842.2	871.8
55°	654.8	666.7	729.8	798.8	830.4
57.5°	599.6	621.3	684.4	755.4	787.0
60°	538.5	566.1	635.1	712.0	743.6
62.5°	499.0	514.8	589.7	666.7	702.2
65°	441.8	461.5	540.4	619.3	656.8
67.5°	394.5	414.2	495.1	574.0	611.4
70°	343.2	362.9	447.7	526.6	564.1
72.5°	284.0	311.6	400.4	479.3	518.7
75°	236.7	262.3	349.1	428.0	459.6
77.5°	183.4	217.0	297.8	362.9	386.6
80°	136.1	169.6	242.6	289.9	311.6
82.5°	92.7	126.2	181.5	217.0	228.8
85°	55.2	78.9	116.4	136.1	134.1
87.5°	25.6	33.5	47.3	47.3	45.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)