

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: P310953

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CA125-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: P310953
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-CA125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 5136.0 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

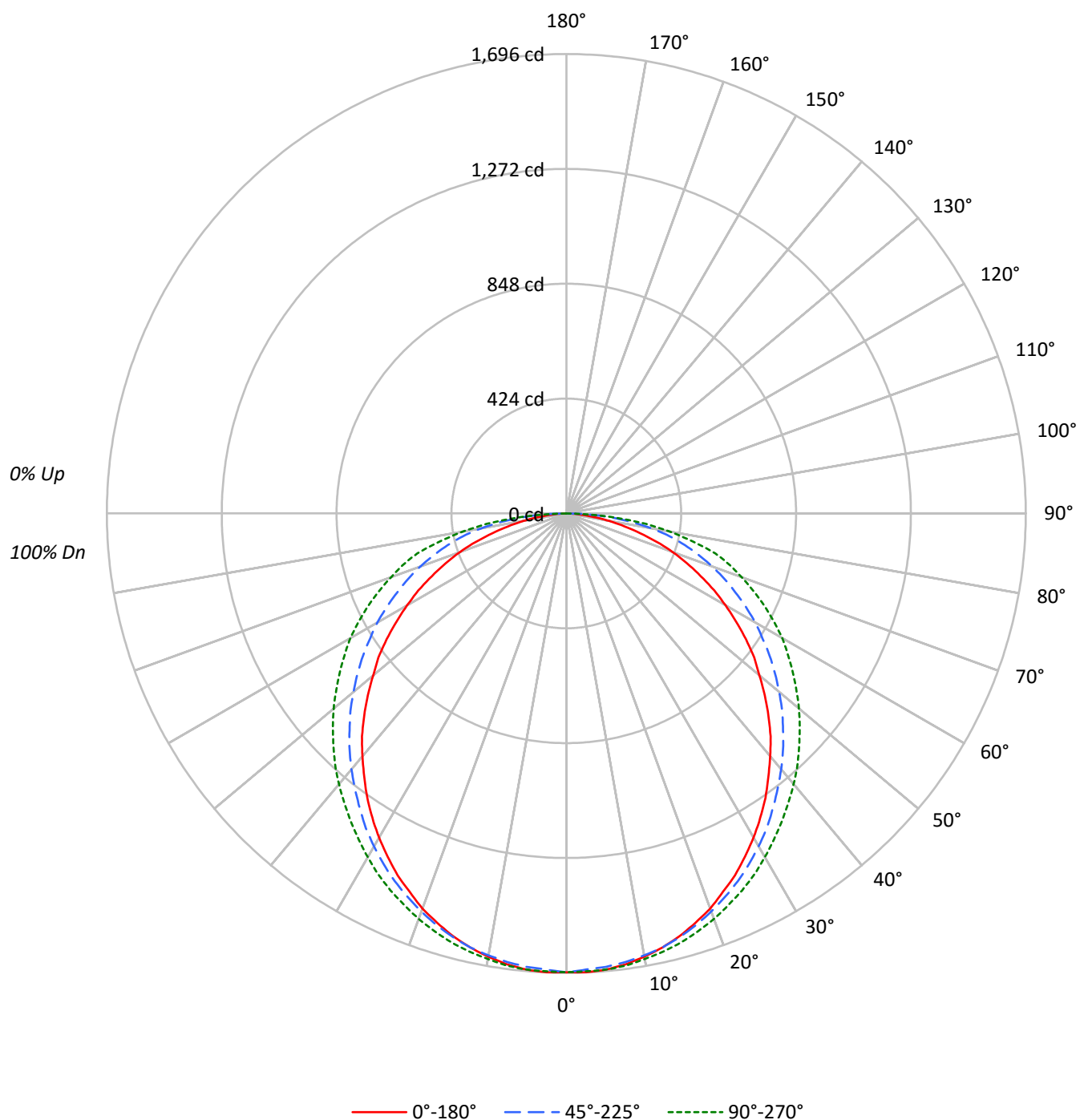
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2279	2279	2279
5°	2283	2269	2283
10°	2270	2263	2282
15°	2250	2255	2283
20°	2223	2240	2281
25°	2188	2224	2279
30°	2147	2205	2277
35°	2105	2183	2278
40°	2056	2167	2293
45°	2007	2153	2312
50°	1948	2147	2347
55°	1899	2151	2394
60°	1825	2169	2476
65°	1741	2192	2566
70°	1649	2259	2708
75°	1471	2357	2959
80°	1254	2496	3023
85°	894	2473	2893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	3.1
10°-20°	458.4	8.9
20°-30°	692.3	13.5
30°-40°	834.4	16.2
40°-50°	876.0	17.1
50°-60°	819.5	16.0
60°-70°	676.8	13.2
70°-80°	461.2	9.0
80°-90°	157.3	3.1
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°	1311.0	25.5
0°-40°	2145.3	41.8
0°-60°	3840.8	74.8
0°-90°	5136.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5136.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1694	1694	1694	1694	1694	
5°	1690	1689	1680	1690	1690	160
15°	1615	1617	1619	1636	1639	455
25°	1474	1481	1498	1527	1535	678
35°	1281	1295	1329	1374	1387	801
45°	1055	1077	1132	1193	1215	814
55°	809	842	917	992	1021	722
65°	547	593	688	775	806	543
75°	283	348	453	538	569	302
85°	58	114	160	181	187	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1693.8	1693.8	1693.8	1693.8	1693.8
2.5°	1695.5	1693.8	1685.3	1693.8	1692.1
5°	1690.4	1688.7	1680.2	1690.4	1690.4
7.5°	1678.5	1678.5	1670.0	1681.9	1683.6
10°	1661.4	1661.4	1656.3	1670.0	1670.0
12.5°	1641.0	1641.0	1641.0	1654.6	1656.3
15°	1615.4	1617.1	1618.8	1635.9	1639.3
17.5°	1584.8	1588.2	1593.3	1613.7	1617.1
20°	1552.4	1555.8	1564.3	1588.2	1593.3
22.5°	1511.5	1520.0	1531.9	1559.2	1564.3
25°	1474.0	1480.8	1497.8	1526.8	1535.3
27.5°	1428.0	1438.2	1460.4	1491.0	1503.0
30°	1382.0	1392.2	1419.5	1455.2	1465.5
32.5°	1332.6	1347.9	1376.9	1414.3	1426.3
35°	1281.4	1295.1	1329.1	1373.5	1387.1
37.5°	1225.2	1243.9	1281.4	1329.1	1346.2
40°	1170.7	1191.1	1233.7	1284.8	1305.3
42.5°	1116.1	1136.6	1184.3	1242.2	1262.7
45°	1054.8	1076.9	1131.5	1192.8	1215.0
47.5°	993.5	1020.7	1080.4	1145.1	1169.0
50°	930.4	961.1	1025.8	1094.0	1121.3
52.5°	874.2	903.1	971.3	1044.6	1070.1
55°	809.4	841.8	916.8	991.7	1020.7
57.5°	743.0	778.7	858.8	940.6	969.6
60°	678.2	717.4	806.0	887.8	920.2
62.5°	615.2	654.3	746.4	831.6	863.9
65°	547.0	593.0	688.4	775.3	806.0
67.5°	482.2	531.7	632.2	717.4	748.1
70°	419.2	466.9	574.3	657.8	688.4
72.5°	351.0	405.6	512.9	599.8	632.2
75°	282.9	347.6	453.3	538.5	569.1
77.5°	219.8	286.3	391.9	461.8	477.1
80°	161.9	230.0	322.1	371.5	390.2
82.5°	103.9	172.1	245.4	281.2	296.5
85°	57.9	114.2	160.2	180.6	187.4
87.5°	23.9	49.4	64.8	73.3	73.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)