

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: P310957

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CA125-W2A-U-6500K**

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: P310957
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-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 6500K 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: 5285.0 lumens
Efficiency: N/A
Efficacy: 117.4 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

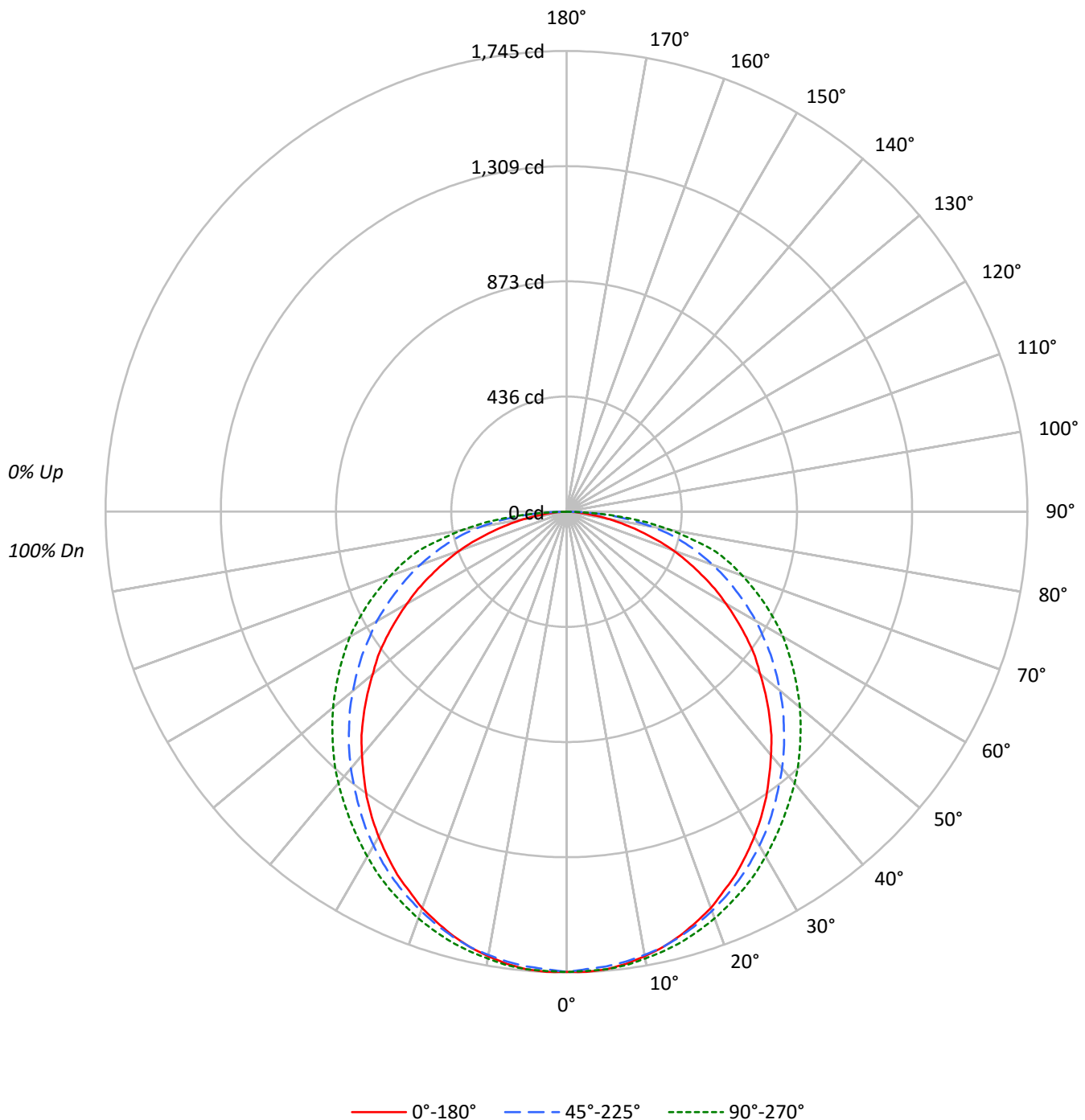
Input Watts (W): 45
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2345	2345	2345
5°	2349	2335	2349
10°	2336	2329	2348
15°	2316	2320	2350
20°	2287	2305	2348
25°	2252	2288	2345
30°	2209	2269	2343
35°	2166	2247	2344
40°	2116	2230	2359
45°	2065	2215	2379
50°	2004	2210	2415
55°	1954	2213	2464
60°	1878	2232	2548
65°	1792	2255	2641
70°	1697	2325	2787
75°	1513	2425	3045
80°	1291	2568	3111
85°	920	2544	2978



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.9	3.1
10°-20°	471.6	8.9
20°-30°	712.4	13.5
30°-40°	858.6	16.2
40°-50°	901.4	17.1
50°-60°	843.3	16.0
60°-70°	696.4	13.2
70°-80°	474.5	9.0
80°-90°	161.8	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°	1349.0	25.5
0°-40°	2207.6	41.8
0°-60°	3952.2	74.8
0°-90°	5285.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5285.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1743	1743	1743	1743	1743	
5°	1739	1738	1729	1739	1739	165
15°	1662	1664	1666	1683	1687	469
25°	1517	1524	1541	1571	1580	698
35°	1319	1333	1368	1413	1427	824
45°	1085	1108	1164	1227	1250	837
55°	833	866	943	1020	1050	743
65°	563	610	708	798	829	558
75°	291	358	466	554	586	310
85°	60	118	165	186	193	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1742.9	1742.9	1742.9	1742.9	1742.9
2.5°	1744.7	1742.9	1734.2	1742.9	1741.2
5°	1739.4	1737.7	1728.9	1739.4	1739.4
7.5°	1727.2	1727.2	1718.4	1730.7	1732.4
10°	1709.6	1709.6	1704.4	1718.4	1718.4
12.5°	1688.6	1688.6	1688.6	1702.6	1704.4
15°	1662.3	1664.0	1665.8	1683.3	1686.8
17.5°	1630.7	1634.2	1639.5	1660.5	1664.0
20°	1597.4	1600.9	1609.7	1634.2	1639.5
22.5°	1555.3	1564.1	1576.4	1604.4	1609.7
25°	1516.7	1523.8	1541.3	1571.1	1579.9
27.5°	1469.4	1479.9	1502.7	1534.3	1546.6
30°	1422.1	1432.6	1460.6	1497.5	1508.0
32.5°	1371.2	1387.0	1416.8	1455.4	1467.7
35°	1318.6	1332.6	1367.7	1413.3	1427.3
37.5°	1260.7	1280.0	1318.6	1367.7	1385.2
40°	1204.6	1225.7	1269.5	1322.1	1343.2
42.5°	1148.5	1169.6	1218.7	1278.3	1299.3
45°	1085.4	1108.2	1164.3	1227.4	1250.2
47.5°	1022.3	1050.3	1111.7	1178.3	1202.9
50°	957.4	989.0	1055.6	1125.7	1153.8
52.5°	899.5	929.3	999.5	1074.9	1101.2
55°	832.9	866.2	943.4	1020.5	1050.3
57.5°	764.5	801.3	883.7	967.9	997.7
60°	697.9	738.2	829.4	913.6	946.9
62.5°	633.0	673.3	768.0	855.7	889.0
65°	562.9	610.2	708.4	797.8	829.4
67.5°	496.2	547.1	650.5	738.2	769.8
70°	431.4	480.5	590.9	676.8	708.4
72.5°	361.2	417.3	527.8	617.2	650.5
75°	291.1	357.7	466.4	554.1	585.7
77.5°	226.2	294.6	403.3	475.2	491.0
80°	166.6	236.7	331.4	382.3	401.5
82.5°	107.0	177.1	252.5	289.3	305.1
85°	59.6	117.5	164.8	185.9	192.9
87.5°	24.5	50.9	66.6	75.4	75.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)