

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: P314046

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-CA125-W2A-U-3500K**

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: P314046  
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-L83050-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 3500K 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**

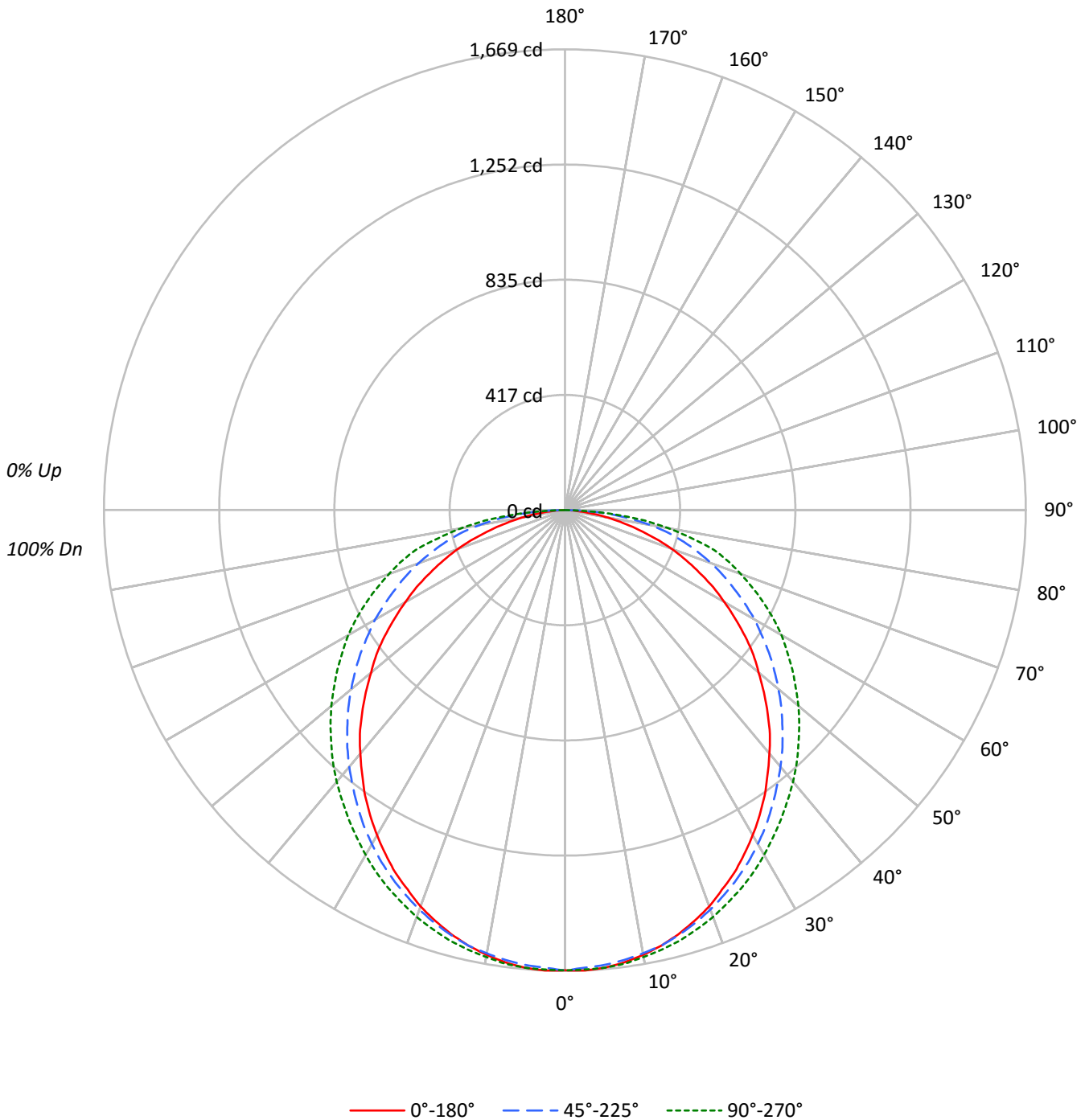
Lumens per Lamp: N/A  
Luminaire Lumens: 5056.0 lumens  
Efficiency: N/A  
Efficacy: 117.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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				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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2243	2243	2243
5°	2248	2234	2248
10°	2235	2228	2246
15°	2215	2220	2248
20°	2188	2205	2246
25°	2154	2189	2244
30°	2114	2171	2241
35°	2072	2149	2243
40°	2024	2133	2257
45°	1976	2120	2276
50°	1917	2114	2310
55°	1869	2117	2357
60°	1796	2135	2437
65°	1714	2158	2526
70°	1624	2224	2666
75°	1448	2320	2913
80°	1235	2456	2976
85°	880	2435	2848



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.8	3.1
10°-20°	451.2	8.9
20°-30°	681.5	13.5
30°-40°	821.4	16.2
40°-50°	862.3	17.1
50°-60°	806.7	16.0
60°-70°	666.2	13.2
70°-80°	454.0	9.0
80°-90°	154.8	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°	1290.5	25.5
0°-40°	2111.9	41.8
0°-60°	3781.0	74.8
0°-90°	5056.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5056.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1667	1667	1667	1667	1667	
5°	1664	1662	1654	1664	1664	158
15°	1590	1592	1594	1610	1614	448
25°	1451	1458	1474	1503	1511	668
35°	1262	1275	1308	1352	1366	788
45°	1038	1060	1114	1174	1196	801
55°	797	829	902	976	1005	711
65°	538	584	678	763	794	534
75°	278	342	446	530	560	297
85°	57	112	158	178	184	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1667.4	1667.4	1667.4	1667.4	1667.4
2.5°	1669.1	1667.4	1659.0	1667.4	1665.7
5°	1664.1	1662.4	1654.0	1664.1	1664.1
7.5°	1652.3	1652.3	1643.9	1655.7	1657.4
10°	1635.6	1635.6	1630.5	1643.9	1643.9
12.5°	1615.4	1615.4	1615.4	1628.8	1630.5
15°	1590.3	1591.9	1593.6	1610.4	1613.7
17.5°	1560.1	1563.4	1568.5	1588.6	1591.9
20°	1528.2	1531.5	1539.9	1563.4	1568.5
22.5°	1487.9	1496.3	1508.1	1534.9	1539.9
25°	1451.0	1457.7	1474.5	1503.0	1511.4
27.5°	1405.7	1415.8	1437.6	1467.8	1479.5
30°	1360.4	1370.5	1397.3	1432.6	1442.6
32.5°	1311.8	1326.9	1355.4	1392.3	1404.1
35°	1261.5	1274.9	1308.4	1352.1	1365.5
37.5°	1206.1	1224.6	1261.5	1308.4	1325.2
40°	1152.4	1172.6	1214.5	1264.8	1285.0
42.5°	1098.8	1118.9	1165.9	1222.9	1243.0
45°	1038.4	1060.2	1113.9	1174.2	1196.1
47.5°	978.0	1004.8	1063.5	1127.3	1150.8
50°	915.9	946.1	1009.8	1076.9	1103.8
52.5°	860.6	889.1	956.2	1028.3	1053.5
55°	796.8	828.7	902.5	976.3	1004.8
57.5°	731.4	766.6	845.5	926.0	954.5
60°	667.6	706.2	793.5	874.0	905.8
62.5°	605.6	644.2	734.7	818.6	850.5
65°	538.5	583.8	677.7	763.3	793.5
67.5°	474.7	523.4	622.3	706.2	736.4
70°	412.7	459.6	565.3	647.5	677.7
72.5°	345.6	399.2	504.9	590.5	622.3
75°	278.5	342.2	446.2	530.1	560.3
77.5°	216.4	281.8	385.8	454.6	469.7
80°	159.4	226.5	317.0	365.7	384.1
82.5°	102.3	169.4	241.6	276.8	291.9
85°	57.0	112.4	157.7	177.8	184.5
87.5°	23.5	48.6	63.7	72.1	72.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)