

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: P314041

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-CA08-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: P314041  
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-CA08-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" 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**

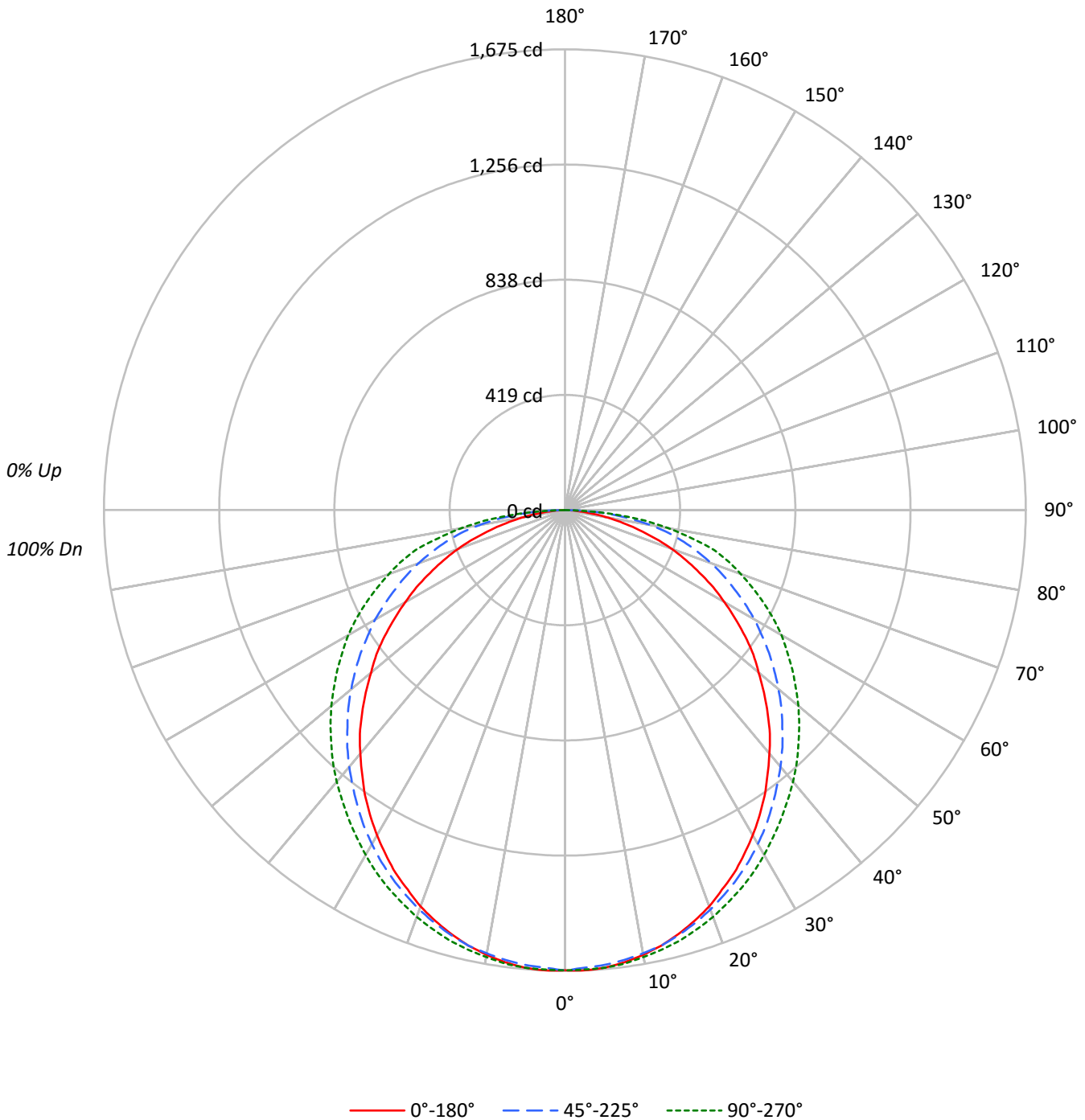
Lumens per Lamp: N/A  
Luminaire Lumens: 5074.0 lumens  
Efficiency: N/A  
Efficacy: 117.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2252	2252	2252
5°	2256	2242	2256
10°	2243	2236	2254
15°	2223	2228	2256
20°	2196	2213	2254
25°	2162	2197	2252
30°	2121	2179	2249
35°	2079	2157	2251
40°	2031	2141	2265
45°	1983	2127	2284
50°	1924	2121	2319
55°	1876	2125	2365
60°	1803	2143	2446
65°	1720	2165	2535
70°	1629	2232	2675
75°	1453	2328	2923
80°	1239	2466	2987
85°	883	2442	2859



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.4	3.1
10°-20°	452.8	8.9
20°-30°	683.9	13.5
30°-40°	824.3	16.2
40°-50°	865.4	17.1
50°-60°	809.6	16.0
60°-70°	668.6	13.2
70°-80°	455.6	9.0
80°-90°	155.4	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°	1295.1	25.5
0°-40°	2119.4	41.8
0°-60°	3794.4	74.8
0°-90°	5074.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5074.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1673	1673	1673	1673	1673	
5°	1670	1668	1660	1670	1670	158
15°	1596	1598	1599	1616	1620	450
25°	1456	1463	1480	1508	1517	670
35°	1266	1279	1313	1357	1370	791
45°	1042	1064	1118	1178	1200	804
55°	800	832	906	980	1008	714
65°	540	586	680	766	796	536
75°	280	343	448	532	562	298
85°	57	113	158	178	185	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1673.4	1673.4	1673.4	1673.4	1673.4
2.5°	1675.0	1673.4	1664.9	1673.4	1671.7
5°	1670.0	1668.3	1659.9	1670.0	1670.0
7.5°	1658.2	1658.2	1649.8	1661.6	1663.3
10°	1641.4	1641.4	1636.3	1649.8	1649.8
12.5°	1621.2	1621.2	1621.2	1634.6	1636.3
15°	1595.9	1597.6	1599.3	1616.1	1619.5
17.5°	1565.6	1569.0	1574.0	1594.2	1597.6
20°	1533.6	1537.0	1545.4	1569.0	1574.0
22.5°	1493.2	1501.6	1513.4	1540.4	1545.4
25°	1456.2	1462.9	1479.8	1508.4	1516.8
27.5°	1410.7	1420.8	1442.7	1473.0	1484.8
30°	1365.3	1375.4	1402.3	1437.7	1447.8
32.5°	1316.5	1331.6	1360.2	1397.3	1409.1
35°	1266.0	1279.4	1313.1	1356.9	1370.3
37.5°	1210.4	1228.9	1266.0	1313.1	1329.9
40°	1156.5	1176.7	1218.8	1269.3	1289.5
42.5°	1102.7	1122.9	1170.0	1227.2	1247.4
45°	1042.1	1063.9	1117.8	1178.4	1200.3
47.5°	981.5	1008.4	1067.3	1131.3	1154.9
50°	919.2	949.5	1013.4	1080.8	1107.7
52.5°	863.6	892.2	959.6	1032.0	1057.2
55°	799.6	831.6	905.7	979.8	1008.4
57.5°	734.0	769.3	848.5	929.3	957.9
60°	670.0	708.7	796.3	877.1	909.1
62.5°	607.7	646.4	737.4	821.5	853.5
65°	540.4	585.8	680.1	766.0	796.3
67.5°	476.4	525.2	624.6	708.7	739.0
70°	414.1	461.3	567.3	649.8	680.1
72.5°	346.8	400.7	506.7	592.6	624.6
75°	279.5	343.4	447.8	532.0	562.3
77.5°	217.2	282.8	387.2	456.2	471.4
80°	159.9	227.3	318.2	367.0	385.5
82.5°	102.7	170.0	242.4	277.8	292.9
85°	57.2	112.8	158.2	178.4	185.2
87.5°	23.6	48.8	64.0	72.4	72.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)