

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: P313404

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-5000K**

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: P313404  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-5000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 5000K 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**

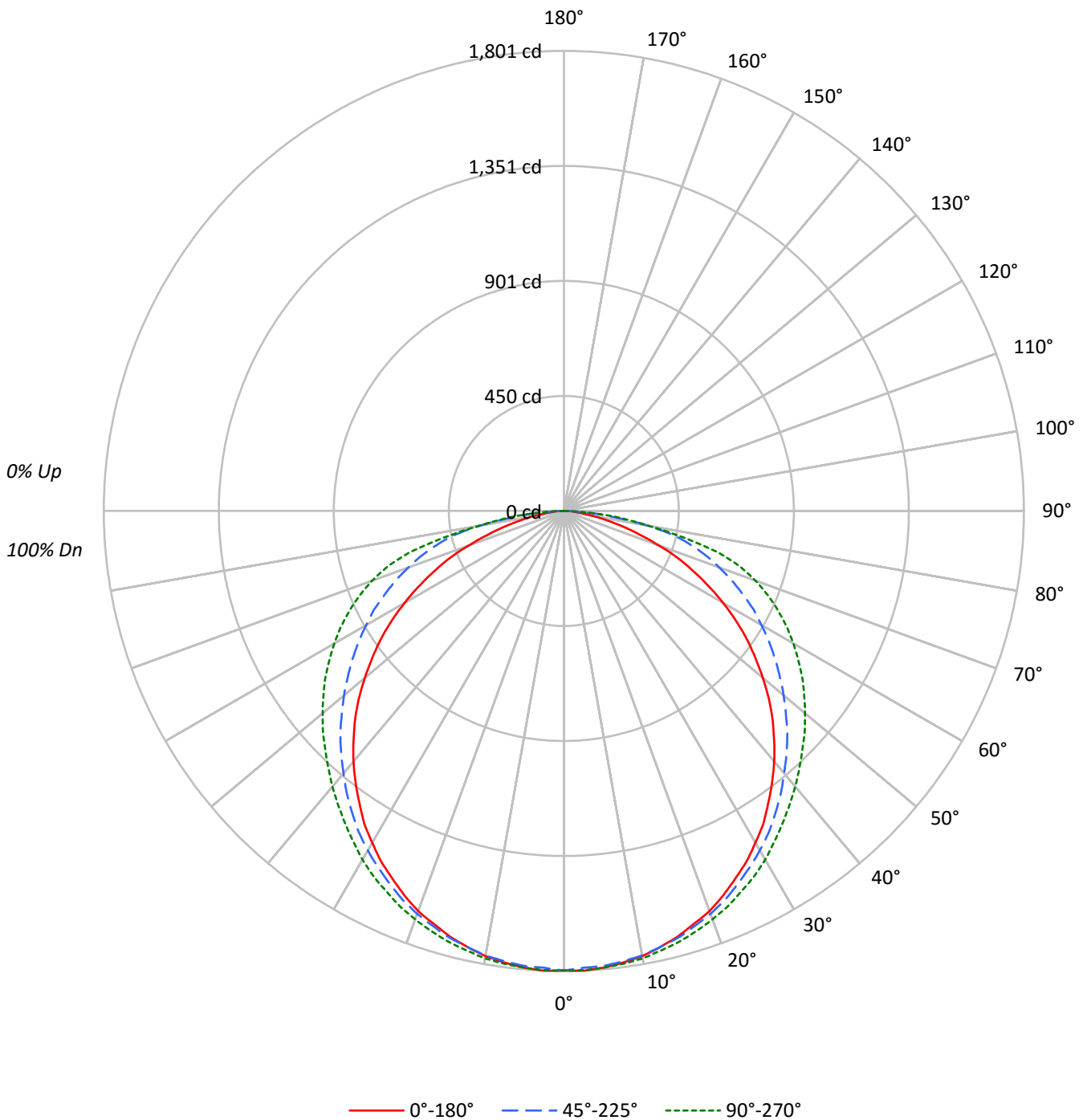
Lumens per Lamp: N/A  
Luminaire Lumens: 5545.0 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 65.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



TEST NUMBER: P313404

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P313404

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-5000K

**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	101	96	93	96	93	90	92	90	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	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	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	24	35	29	24	23

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

	0°	45°	90°
0°	2421	2421	2421
5°	2424	2414	2424
10°	2417	2414	2429
15°	2403	2409	2432
20°	2387	2403	2436
25°	2357	2392	2440
30°	2330	2384	2449
35°	2292	2372	2452
40°	2251	2357	2475
45°	2200	2354	2513
50°	2128	2352	2580
55°	2053	2369	2674
60°	1936	2405	2792
65°	1789	2461	2949
70°	1562	2548	3142
75°	1267	2679	3247
80°	935	2626	2626
85°	716	1936	2186



TEST NUMBER: P313404

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.4	3.1
10°-20°	489.4	8.8
20°-30°	745.1	13.4
30°-40°	904.7	16.3
40°-50°	955.8	17.2
50°-60°	901.9	16.3
60°-70°	749.9	13.5
70°-80°	493.4	8.9
80°-90°	134.5	2.4
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°	1404.9	25.3
0°-40°	2309.6	41.7
0°-60°	4167.3	75.2
0°-90°	5545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5545.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1799	1799	1799	1799	1799	
5°	1794	1794	1788	1794	1794	170
15°	1725	1727	1729	1746	1746	486
25°	1588	1597	1611	1639	1644	732
35°	1395	1411	1444	1481	1493	873
45°	1156	1179	1237	1298	1321	890
55°	875	912	1010	1105	1140	780
65°	562	627	773	887	926	555
75°	244	355	515	610	624	263
85°	46	102	125	139	142	57
90°	0	0	0	0	0	



TEST NUMBER: P313404

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1799.1	1799.1	1799.1	1799.1	1799.1
2.5°	1801.4	1799.1	1789.8	1799.1	1799.1
5°	1794.4	1794.4	1787.5	1794.4	1794.4
7.5°	1782.8	1782.8	1778.2	1787.5	1787.5
10°	1768.9	1768.9	1766.6	1778.2	1778.2
12.5°	1748.0	1750.3	1748.0	1761.9	1761.9
15°	1724.8	1727.1	1729.4	1745.7	1745.7
17.5°	1694.6	1699.3	1703.9	1722.5	1724.8
20°	1666.8	1669.1	1678.4	1699.3	1701.6
22.5°	1629.6	1636.6	1648.2	1669.1	1676.0
25°	1587.8	1597.1	1611.0	1638.9	1643.5
27.5°	1548.4	1555.3	1573.9	1604.1	1613.4
30°	1499.6	1511.2	1534.4	1564.6	1576.2
32.5°	1453.2	1464.8	1492.7	1525.2	1534.4
35°	1395.2	1411.4	1443.9	1481.0	1492.7
37.5°	1339.4	1355.7	1395.2	1436.9	1450.9
40°	1281.4	1300.0	1341.8	1390.5	1409.1
42.5°	1218.7	1244.3	1290.7	1344.1	1365.0
45°	1156.1	1179.3	1237.3	1297.7	1320.9
47.5°	1088.7	1116.6	1179.3	1251.2	1279.1
50°	1016.8	1051.6	1123.6	1202.5	1232.7
52.5°	944.8	984.3	1065.5	1153.7	1186.2
55°	875.2	912.3	1009.8	1105.0	1139.8
57.5°	798.6	845.0	951.8	1053.9	1088.7
60°	719.6	770.7	893.7	1000.5	1037.7
62.5°	640.7	698.7	838.0	944.8	984.3
65°	561.8	626.8	773.0	886.8	926.2
67.5°	485.2	557.1	712.7	826.4	865.9
70°	397.0	487.5	647.7	759.1	798.6
72.5°	315.7	420.2	585.0	689.5	724.3
75°	243.7	355.2	515.3	610.5	624.5
77.5°	178.7	290.2	443.4	475.9	478.2
80°	120.7	232.1	338.9	334.3	338.9
82.5°	78.9	174.1	213.6	239.1	241.4
85°	46.4	102.1	125.4	139.3	141.6
87.5°	23.2	34.8	44.1	46.4	51.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)