

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: P313392

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-HRP-CA08-W2A-U-4000K**

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: P313392  
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-CA08-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET  
Light Source: (336) 4000K 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**

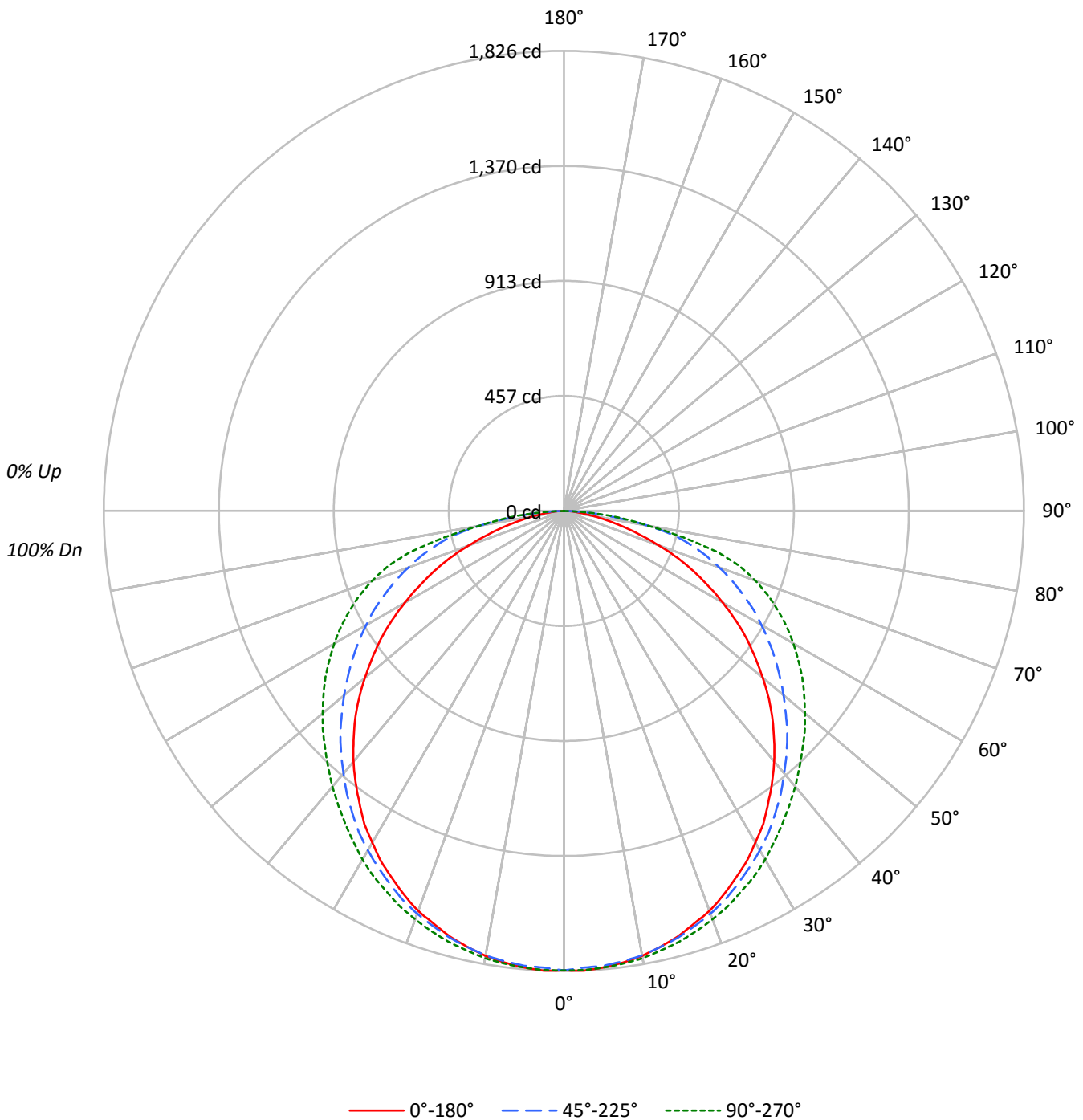
Lumens per Lamp: N/A  
Luminaire Lumens: 5621.0 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P313392

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA08-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P313392

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA08-W2A-U-4000K

**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°	2454	2454	2454
5°	2457	2447	2457
10°	2450	2447	2463
15°	2435	2442	2465
20°	2419	2436	2470
25°	2390	2424	2473
30°	2362	2417	2482
35°	2323	2404	2485
40°	2282	2389	2509
45°	2230	2387	2548
50°	2157	2384	2616
55°	2081	2401	2710
60°	1963	2438	2831
65°	1813	2495	2989
70°	1583	2583	3185
75°	1285	2716	3291
80°	948	2662	2662
85°	727	1962	2215



TEST NUMBER: P313392

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA08-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.8	3.1
10°-20°	496.1	8.8
20°-30°	755.3	13.4
30°-40°	917.1	16.3
40°-50°	968.9	17.2
50°-60°	914.3	16.3
60°-70°	760.2	13.5
70°-80°	500.1	8.9
80°-90°	136.3	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°	1424.2	25.3
0°-40°	2341.3	41.7
0°-60°	4224.4	75.2
0°-90°	5621.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5621.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1824	1824	1824	1824	1824	
5°	1819	1819	1812	1819	1819	173
15°	1748	1751	1753	1770	1770	493
25°	1610	1619	1633	1661	1666	742
35°	1414	1431	1464	1501	1513	885
45°	1172	1195	1254	1315	1339	902
55°	887	925	1024	1120	1155	790
65°	570	635	784	899	939	563
75°	247	360	522	619	633	266
85°	47	104	127	141	144	58
90°	0	0	0	0	0	



TEST NUMBER: P313392

CATALOG NUMBER: 24FC22-75HE-UNV-L83050-HRP-CA08-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1823.7	1823.7	1823.7	1823.7	1823.7
2.5°	1826.1	1823.7	1814.3	1823.7	1823.7
5°	1819.0	1819.0	1812.0	1819.0	1819.0
7.5°	1807.3	1807.3	1802.6	1812.0	1812.0
10°	1793.1	1793.1	1790.8	1802.6	1802.6
12.5°	1772.0	1774.3	1772.0	1786.1	1786.1
15°	1748.4	1750.8	1753.1	1769.6	1769.6
17.5°	1717.8	1722.5	1727.3	1746.1	1748.4
20°	1689.6	1692.0	1701.4	1722.5	1724.9
22.5°	1652.0	1659.0	1670.8	1692.0	1699.0
25°	1609.6	1619.0	1633.1	1661.4	1666.1
27.5°	1569.6	1576.7	1595.5	1626.1	1635.5
30°	1520.2	1531.9	1555.5	1586.1	1597.8
32.5°	1473.1	1484.9	1513.1	1546.1	1555.5
35°	1414.3	1430.8	1463.7	1501.3	1513.1
37.5°	1357.8	1374.3	1414.3	1456.6	1470.8
40°	1299.0	1317.8	1360.2	1409.6	1428.4
42.5°	1235.4	1261.3	1308.4	1362.5	1383.7
45°	1171.9	1195.4	1254.3	1315.4	1339.0
47.5°	1103.7	1131.9	1195.4	1268.4	1296.6
50°	1030.7	1066.0	1139.0	1219.0	1249.6
52.5°	957.8	997.8	1080.1	1169.5	1202.5
55°	887.2	924.8	1023.6	1120.1	1155.4
57.5°	809.5	856.6	964.8	1068.4	1103.7
60°	729.5	781.3	906.0	1014.2	1051.9
62.5°	649.5	708.3	849.5	957.8	997.8
65°	569.5	635.4	783.6	898.9	938.9
67.5°	491.8	564.8	722.4	837.7	877.7
70°	402.4	494.2	656.5	769.5	809.5
72.5°	320.0	425.9	593.0	698.9	734.2
75°	247.1	360.0	522.4	618.9	633.0
77.5°	181.2	294.2	449.5	482.4	484.8
80°	122.4	235.3	343.6	338.9	343.6
82.5°	80.0	176.5	216.5	242.4	244.7
85°	47.1	103.5	127.1	141.2	143.5
87.5°	23.5	35.3	44.7	47.1	51.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)