

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: P313397

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-HRP-CA125-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: P313397  
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-CA125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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**

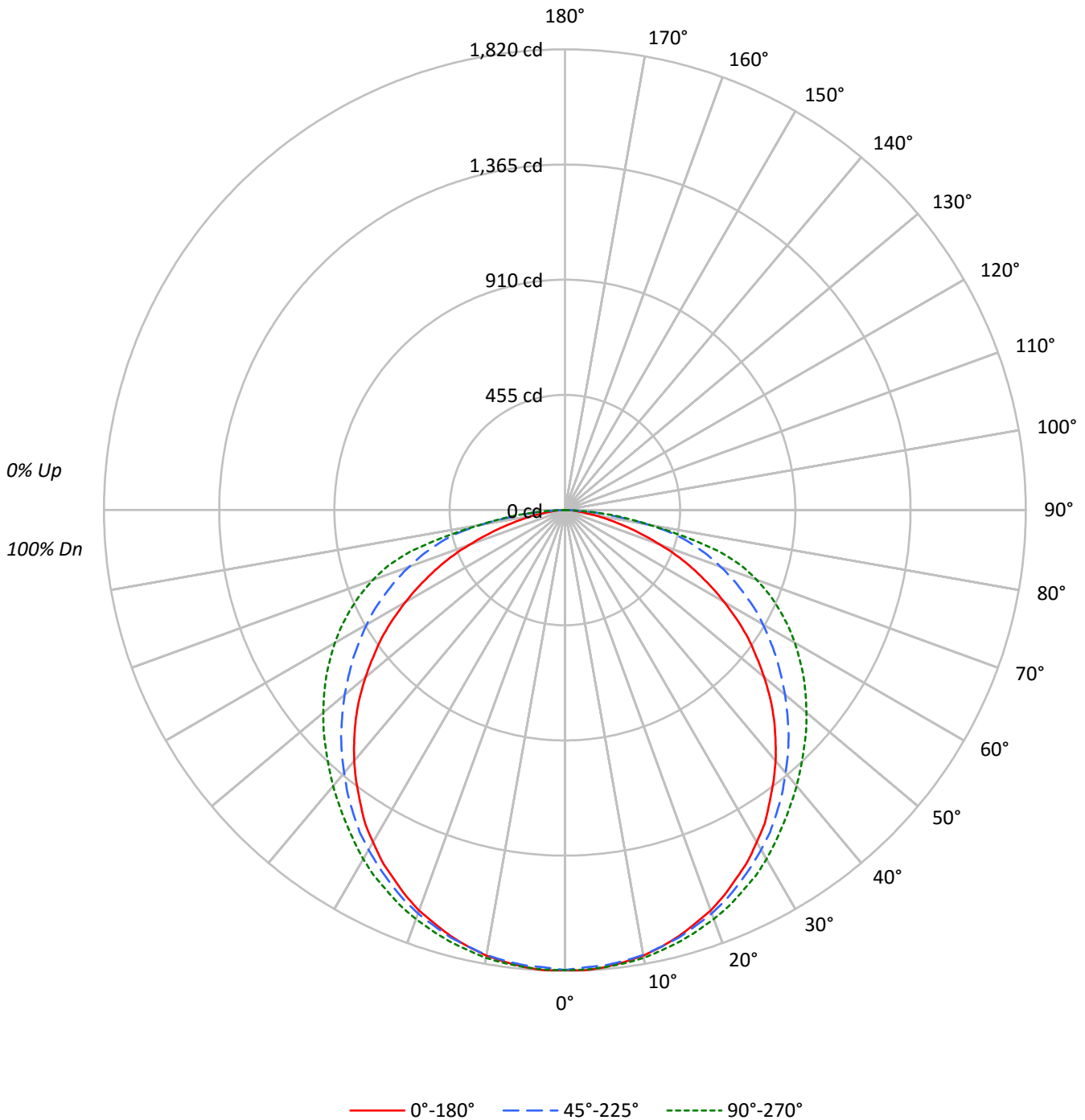
Lumens per Lamp: N/A  
Luminaire Lumens: 5601.0 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



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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	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°	2445	2445	2445
5°	2448	2439	2448
10°	2441	2438	2454
15°	2427	2433	2456
20°	2411	2427	2461
25°	2381	2416	2465
30°	2353	2408	2474
35°	2315	2396	2476
40°	2273	2380	2500
45°	2222	2378	2539
50°	2150	2376	2606
55°	2074	2393	2701
60°	1956	2429	2820
65°	1807	2486	2979
70°	1578	2574	3173
75°	1280	2706	3279
80°	945	2652	2652
85°	724	1954	2208



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.1	3.1
10°-20°	494.4	8.8
20°-30°	752.6	13.4
30°-40°	913.8	16.3
40°-50°	965.5	17.2
50°-60°	911.0	16.3
60°-70°	757.5	13.5
70°-80°	498.3	8.9
80°-90°	135.8	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°	1419.1	25.3
0°-40°	2332.9	41.7
0°-60°	4209.4	75.2
0°-90°	5601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5601.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1817	1817	1817	1817	1817	
5°	1813	1813	1806	1813	1813	172
15°	1742	1745	1747	1763	1763	491
25°	1604	1613	1627	1656	1660	740
35°	1409	1426	1458	1496	1508	882
45°	1168	1191	1250	1311	1334	899
55°	884	922	1020	1116	1151	787
65°	568	633	781	896	936	561
75°	246	359	521	617	631	265
85°	47	103	127	141	143	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1817.2	1817.2	1817.2	1817.2	1817.2
2.5°	1819.6	1817.2	1807.9	1817.2	1817.2
5°	1812.6	1812.6	1805.5	1812.6	1812.6
7.5°	1800.8	1800.8	1796.1	1805.5	1805.5
10°	1786.8	1786.8	1784.4	1796.1	1796.1
12.5°	1765.7	1768.0	1765.7	1779.7	1779.7
15°	1742.2	1744.6	1746.9	1763.3	1763.3
17.5°	1711.7	1716.4	1721.1	1739.9	1742.2
20°	1683.6	1685.9	1695.3	1716.4	1718.8
22.5°	1646.1	1653.1	1664.8	1685.9	1693.0
25°	1603.9	1613.2	1627.3	1655.5	1660.1
27.5°	1564.0	1571.0	1589.8	1620.3	1629.7
30°	1514.8	1526.5	1549.9	1580.4	1592.1
32.5°	1467.9	1479.6	1507.7	1540.6	1549.9
35°	1409.2	1425.7	1458.5	1496.0	1507.7
37.5°	1353.0	1369.4	1409.2	1451.5	1465.5
40°	1294.4	1313.1	1355.3	1404.6	1423.3
42.5°	1231.0	1256.8	1303.7	1357.7	1378.8
45°	1167.7	1191.2	1249.8	1310.8	1334.2
47.5°	1099.7	1127.9	1191.2	1263.9	1292.0
50°	1027.0	1062.2	1134.9	1214.6	1245.1
52.5°	954.3	994.2	1076.3	1165.4	1198.2
55°	884.0	921.5	1020.0	1116.1	1151.3
57.5°	806.6	853.5	961.4	1064.6	1099.7
60°	726.9	778.5	902.8	1010.6	1048.1
62.5°	647.2	705.8	846.5	954.3	994.2
65°	567.5	633.1	780.8	895.7	935.6
67.5°	490.1	562.8	719.9	834.8	874.6
70°	401.0	492.4	654.2	766.8	806.6
72.5°	318.9	424.4	590.9	696.4	731.6
75°	246.2	358.8	520.6	616.7	630.8
77.5°	180.6	293.1	447.9	480.7	483.0
80°	121.9	234.5	342.3	337.7	342.3
82.5°	79.7	175.9	215.7	241.5	243.9
85°	46.9	103.2	126.6	140.7	143.0
87.5°	23.4	35.2	44.6	46.9	51.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)