

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: P311814

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-S-CP125-W2A-U-3000K**

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: P311814  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
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-L82765-S-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 3000K 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**

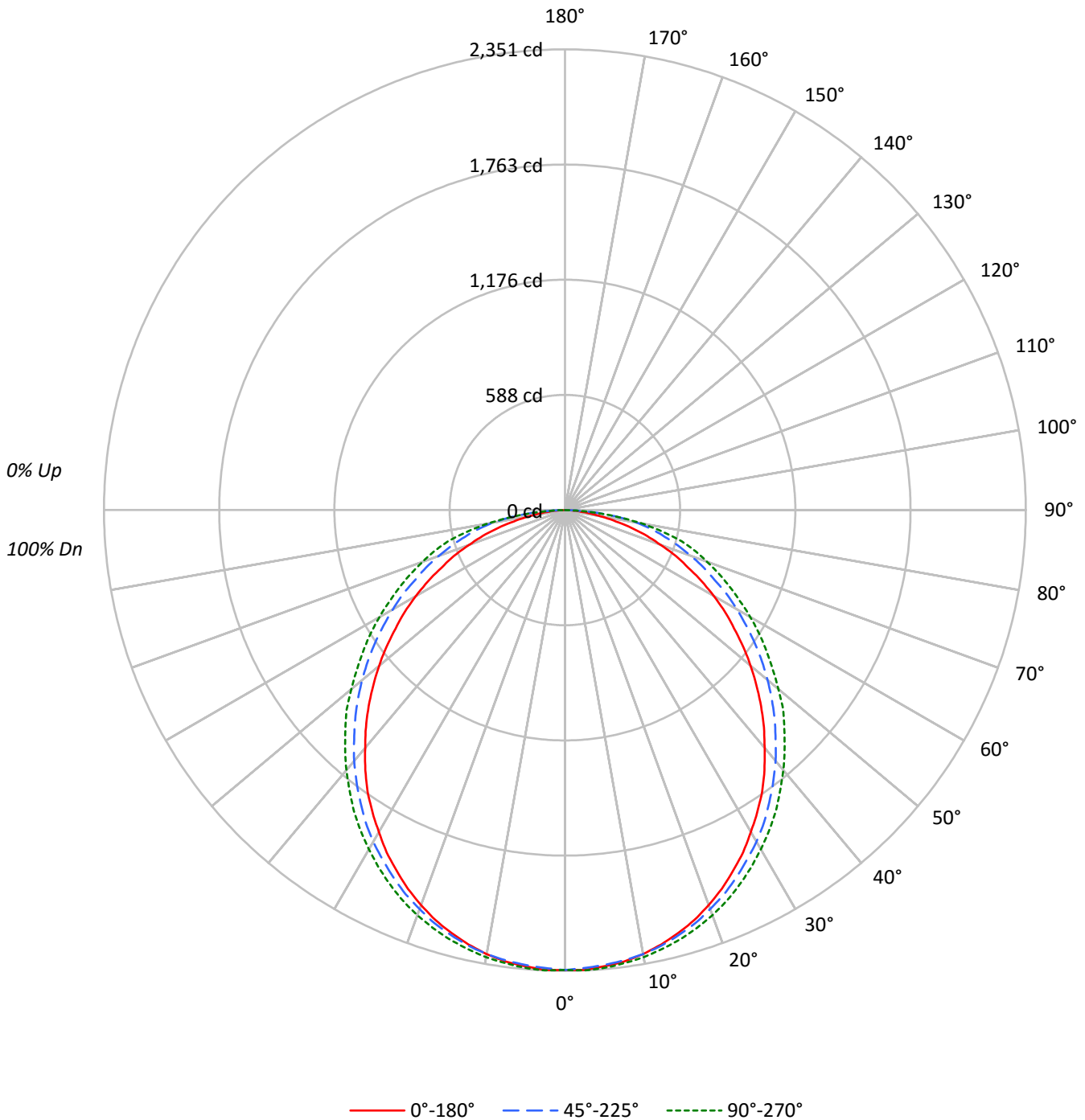
Lumens per Lamp: N/A  
Luminaire Lumens: 6680.0 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 62.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	3157	3157	3157
5°	3155	3147	3167
10°	3142	3142	3166
15°	3112	3127	3159
20°	3072	3102	3150
25°	3015	3071	3131
30°	2947	3036	3105
35°	2882	2987	3081
40°	2784	2937	3045
45°	2693	2879	3012
50°	2589	2825	2976
55°	2474	2772	2947
60°	2358	2729	2940
65°	2209	2682	2959
70°	2045	2696	3038
75°	1831	2746	3210
80°	1480	2910	3140
85°	1113	2555	2490



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.2	3.3
10°-20°	634.8	9.5
20°-30°	954.3	14.3
30°-40°	1136.7	17.0
40°-50°	1163.3	17.4
50°-60°	1047.3	15.7
60°-70°	822.5	12.3
70°-80°	533.8	8.0
80°-90°	165.1	2.5
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°	1811.2	27.1
0°-40°	2947.9	44.1
0°-60°	5158.6	77.2
0°-90°	6680.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6680.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2347	2347	2347	2347	2347	
5°	2336	2340	2330	2342	2345	222
15°	2234	2241	2245	2264	2268	630
25°	2031	2048	2069	2103	2109	935
35°	1755	1776	1818	1863	1876	1095
45°	1415	1449	1513	1570	1583	1091
55°	1054	1101	1182	1243	1256	945
65°	694	747	842	912	929	691
75°	352	420	528	600	617	373
85°	72	134	166	161	161	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2346.7	2346.7	2346.7	2346.7	2346.7
2.5°	2348.8	2348.8	2338.2	2348.8	2351.0
5°	2336.1	2340.4	2329.8	2342.5	2344.6
7.5°	2323.4	2323.4	2317.0	2329.8	2331.9
10°	2300.0	2302.2	2300.0	2314.9	2317.0
12.5°	2270.3	2274.6	2276.7	2291.6	2293.7
15°	2234.3	2240.6	2244.9	2264.0	2268.2
17.5°	2194.0	2200.3	2210.9	2232.1	2236.4
20°	2145.2	2153.6	2166.4	2194.0	2200.3
22.5°	2092.1	2100.6	2121.8	2147.3	2157.9
25°	2030.6	2047.6	2068.8	2102.7	2109.1
27.5°	1969.0	1983.9	2011.5	2047.6	2056.0
30°	1896.9	1920.2	1954.2	1990.3	1998.7
32.5°	1826.9	1850.2	1890.5	1928.7	1939.3
35°	1754.7	1776.0	1818.4	1863.0	1875.7
37.5°	1672.0	1699.6	1746.3	1790.8	1803.5
40°	1585.0	1618.9	1672.0	1718.7	1733.5
42.5°	1502.2	1538.3	1591.4	1642.3	1659.3
45°	1415.3	1449.2	1512.9	1570.1	1582.9
47.5°	1326.1	1364.3	1432.2	1489.5	1510.7
50°	1237.0	1277.3	1349.5	1408.9	1421.6
52.5°	1147.9	1190.3	1266.7	1330.4	1336.7
55°	1054.5	1101.2	1181.9	1243.4	1256.1
57.5°	969.7	1010.0	1097.0	1160.6	1175.5
60°	876.3	920.9	1014.2	1073.6	1092.7
62.5°	787.2	833.9	931.5	990.9	1007.9
65°	693.8	746.9	842.4	912.4	929.4
67.5°	613.2	664.1	766.0	833.9	850.8
70°	519.8	577.1	685.3	755.4	772.3
72.5°	439.2	498.6	606.8	674.7	700.2
75°	352.2	420.1	528.3	600.5	617.4
77.5°	267.3	345.9	456.2	511.4	511.4
80°	191.0	273.7	375.6	401.0	405.3
82.5°	125.2	205.8	278.0	275.8	275.8
85°	72.1	133.7	165.5	161.3	161.3
87.5°	27.6	55.2	59.4	59.4	57.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)