

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: P311635

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-S-CP125-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: P311635  
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: 24FCZ2-55HE-UNV-L82765-S-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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**

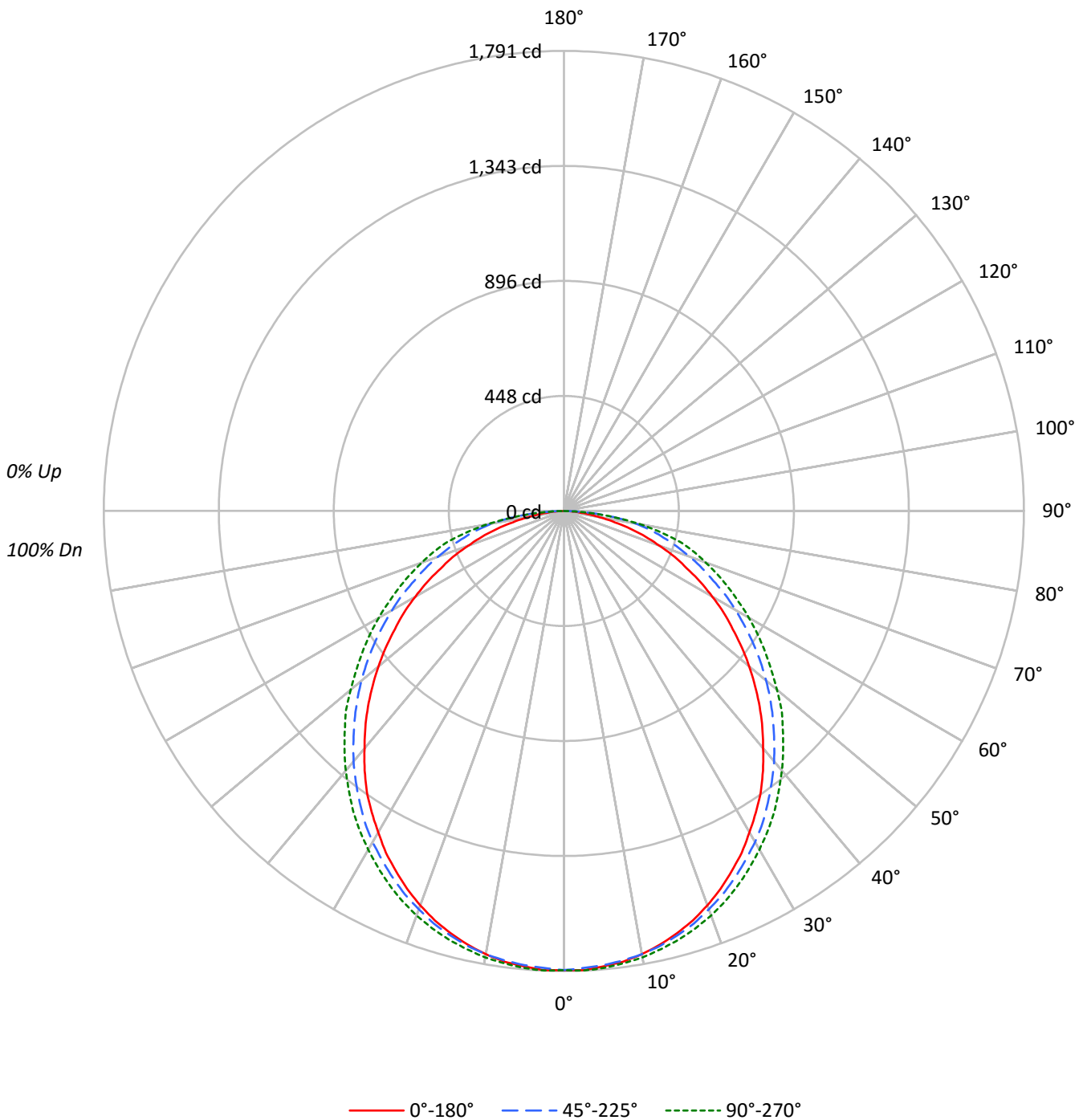
Lumens per Lamp: N/A  
Luminaire Lumens: 5088.0 lumens  
Efficiency: N/A  
Efficacy: 117.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2405	2405	2405
5°	2403	2397	2412
10°	2394	2394	2411
15°	2371	2382	2407
20°	2339	2363	2400
25°	2296	2339	2385
30°	2245	2313	2365
35°	2195	2275	2347
40°	2121	2237	2319
45°	2051	2193	2294
50°	1972	2152	2267
55°	1884	2112	2244
60°	1796	2079	2240
65°	1683	2043	2254
70°	1558	2054	2314
75°	1395	2092	2445
80°	1127	2217	2392
85°	848	1947	1896



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	169.2	3.3
10°-20°	483.5	9.5
20°-30°	726.8	14.3
30°-40°	865.8	17.0
40°-50°	886.1	17.4
50°-60°	797.7	15.7
60°-70°	626.5	12.3
70°-80°	406.6	8.0
80°-90°	125.8	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°	1379.6	27.1
0°-40°	2245.4	44.1
0°-60°	3929.2	77.2
0°-90°	5088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5088.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1787	1787	1787	1787	1787	
5°	1779	1783	1774	1784	1786	169
15°	1702	1707	1710	1724	1728	480
25°	1547	1560	1576	1602	1606	712
35°	1336	1353	1385	1419	1429	834
45°	1078	1104	1152	1196	1206	831
55°	803	839	900	947	957	720
65°	528	569	642	695	708	526
75°	268	320	402	457	470	284
85°	55	102	126	123	123	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1789.1	1789.1	1781.0	1789.1	1790.7
5°	1779.4	1782.6	1774.5	1784.2	1785.8
7.5°	1769.7	1769.7	1764.8	1774.5	1776.1
10°	1751.9	1753.5	1751.9	1763.2	1764.8
12.5°	1729.3	1732.5	1734.1	1745.4	1747.0
15°	1701.8	1706.6	1709.9	1724.4	1727.7
17.5°	1671.1	1675.9	1684.0	1700.2	1703.4
20°	1633.9	1640.4	1650.1	1671.1	1675.9
22.5°	1593.5	1600.0	1616.1	1635.5	1643.6
25°	1546.6	1559.6	1575.7	1601.6	1606.4
27.5°	1499.8	1511.1	1532.1	1559.6	1566.0
30°	1444.8	1462.6	1488.5	1515.9	1522.4
32.5°	1391.5	1409.3	1440.0	1469.1	1477.1
35°	1336.5	1352.7	1385.0	1419.0	1428.7
37.5°	1273.5	1294.5	1330.1	1364.0	1373.7
40°	1207.3	1233.1	1273.5	1309.1	1320.4
42.5°	1144.2	1171.7	1212.1	1250.9	1263.8
45°	1078.0	1103.8	1152.3	1195.9	1205.6
47.5°	1010.1	1039.2	1090.9	1134.5	1150.7
50°	942.2	972.9	1027.9	1073.1	1082.8
52.5°	874.3	906.7	964.8	1013.3	1018.2
55°	803.2	838.8	900.2	947.1	956.8
57.5°	738.6	769.3	835.5	884.0	895.3
60°	667.5	701.4	772.5	817.8	832.3
62.5°	599.6	635.1	709.5	754.7	767.7
65°	528.5	568.9	641.6	694.9	707.9
67.5°	467.1	505.9	583.4	635.1	648.1
70°	396.0	439.6	522.0	575.3	588.3
72.5°	334.5	379.8	462.2	513.9	533.3
75°	268.3	320.0	402.4	457.4	470.3
77.5°	203.6	263.4	347.5	389.5	389.5
80°	145.5	208.5	286.1	305.4	308.7
82.5°	95.4	156.8	211.7	210.1	210.1
85°	54.9	101.8	126.1	122.8	122.8
87.5°	21.0	42.0	45.3	45.3	43.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)