

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: P313672

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-RDP-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: P313672  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
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-L83050-RDP-CA125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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**

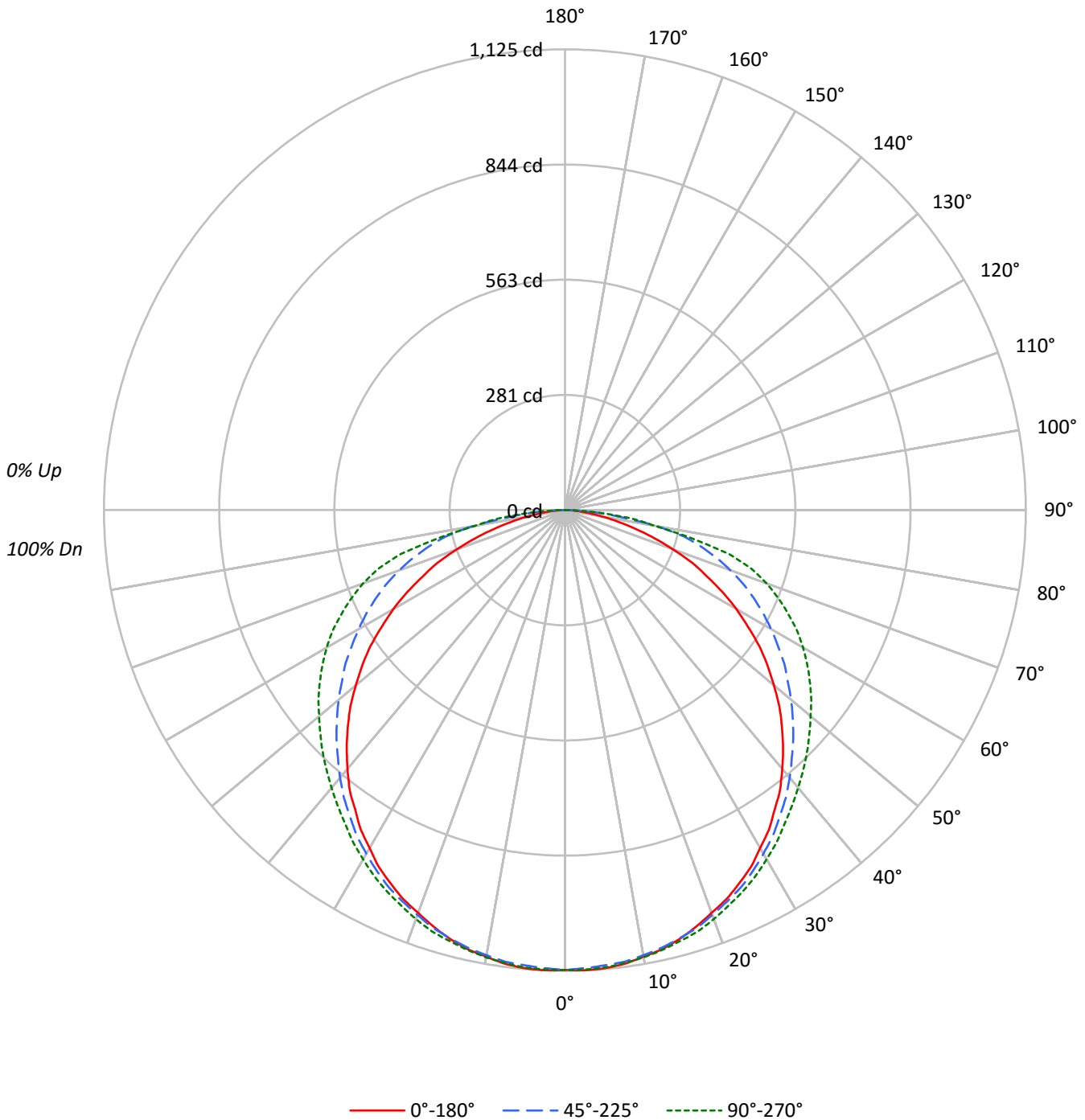
Lumens per Lamp: N/A  
Luminaire Lumens: 3571.0 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P313672

CATALOG NUMBER: 24FCZ2-55HE-UNV-L83050-RDP-CA125-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P313672

CATALOG NUMBER: 24FCZ2-55HE-UNV-L83050-RDP-CA125-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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1511	1511	1511
5°	1517	1507	1514
10°	1512	1508	1515
15°	1510	1507	1517
20°	1499	1506	1522
25°	1494	1509	1525
30°	1480	1505	1530
35°	1466	1501	1536
40°	1450	1499	1555
45°	1426	1500	1591
50°	1394	1509	1639
55°	1359	1533	1712
60°	1301	1563	1806
65°	1218	1619	1917
70°	1108	1693	2063
75°	939	1786	2155
80°	741	1798	1743
85°	546	1368	1531



TEST NUMBER: P313672

CATALOG NUMBER: 24FCZ2-55HE-UNV-L83050-RDP-CA125-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.5	3.0
10°-20°	306.6	8.6
20°-30°	468.8	13.1
30°-40°	573.1	16.0
40°-50°	610.8	17.1
50°-60°	584.0	16.4
60°-70°	494.8	13.9
70°-80°	332.5	9.3
80°-90°	93.8	2.6
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°	881.9	24.7
0°-40°	1455.1	40.7
0°-60°	2649.9	74.2
0°-90°	3571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3571.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1123	1121	1116	1121	1121	107
15°	1084	1084	1082	1091	1089	306
25°	1006	1010	1017	1026	1027	464
35°	893	900	914	932	935	559
45°	749	762	788	822	836	578
55°	579	600	654	705	730	516
65°	383	422	508	576	602	380
75°	181	246	344	402	414	193
85°	35	73	89	96	99	44
90°	0	0	0	0	0	



TEST NUMBER: P313672

CATALOG NUMBER: 24FCZ2-55HE-UNV-L83050-RDP-CA125-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1123.0	1123.0	1123.0	1123.0	1123.0
2.5°	1124.7	1124.7	1119.4	1123.0	1123.0
5°	1123.0	1121.2	1115.9	1121.2	1121.2
7.5°	1117.7	1115.9	1112.3	1117.7	1115.9
10°	1107.0	1107.0	1103.5	1108.8	1108.8
12.5°	1098.2	1096.4	1094.6	1101.7	1100.0
15°	1084.0	1084.0	1082.2	1091.1	1089.3
17.5°	1066.3	1068.1	1069.8	1076.9	1078.7
20°	1046.8	1050.4	1052.1	1062.8	1062.8
22.5°	1029.1	1030.9	1034.4	1045.0	1045.0
25°	1006.1	1009.6	1016.7	1025.6	1027.3
27.5°	983.0	984.8	993.7	1006.1	1007.8
30°	952.9	958.3	968.9	983.0	984.8
32.5°	926.4	931.7	944.1	958.3	961.8
35°	892.7	899.8	914.0	931.7	935.2
37.5°	862.6	867.9	885.6	905.1	910.4
40°	825.4	836.0	853.7	876.8	885.6
42.5°	788.2	798.8	820.1	850.2	860.8
45°	749.2	761.6	788.2	821.9	836.0
47.5°	710.3	724.4	754.6	793.5	809.5
50°	666.0	683.7	720.9	765.2	782.9
52.5°	623.5	644.7	685.5	735.1	758.1
55°	579.2	600.5	653.6	705.0	729.8
57.5°	529.6	557.9	616.4	674.8	701.4
60°	483.6	510.1	581.0	644.7	671.3
62.5°	434.0	469.4	545.5	612.9	639.4
65°	382.6	421.6	508.4	575.7	602.2
67.5°	336.5	379.0	471.2	538.5	565.0
70°	281.6	334.8	430.4	497.7	524.3
72.5°	230.3	288.7	387.9	453.4	478.2
75°	180.7	246.2	343.6	402.1	414.5
77.5°	134.6	203.7	297.6	322.4	313.5
80°	95.6	163.0	232.0	219.6	224.9
82.5°	62.0	124.0	143.5	163.0	168.3
85°	35.4	72.6	88.6	95.6	99.2
87.5°	15.9	26.6	35.4	35.4	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)