

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: P309571

Luminaire Tested: **24FCZ2-50-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P309571  
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: 24FCZ2-50-UNV-L82765-HRP-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"  
POLYCARB SHEET  
Light Source: (168) 6500K 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**

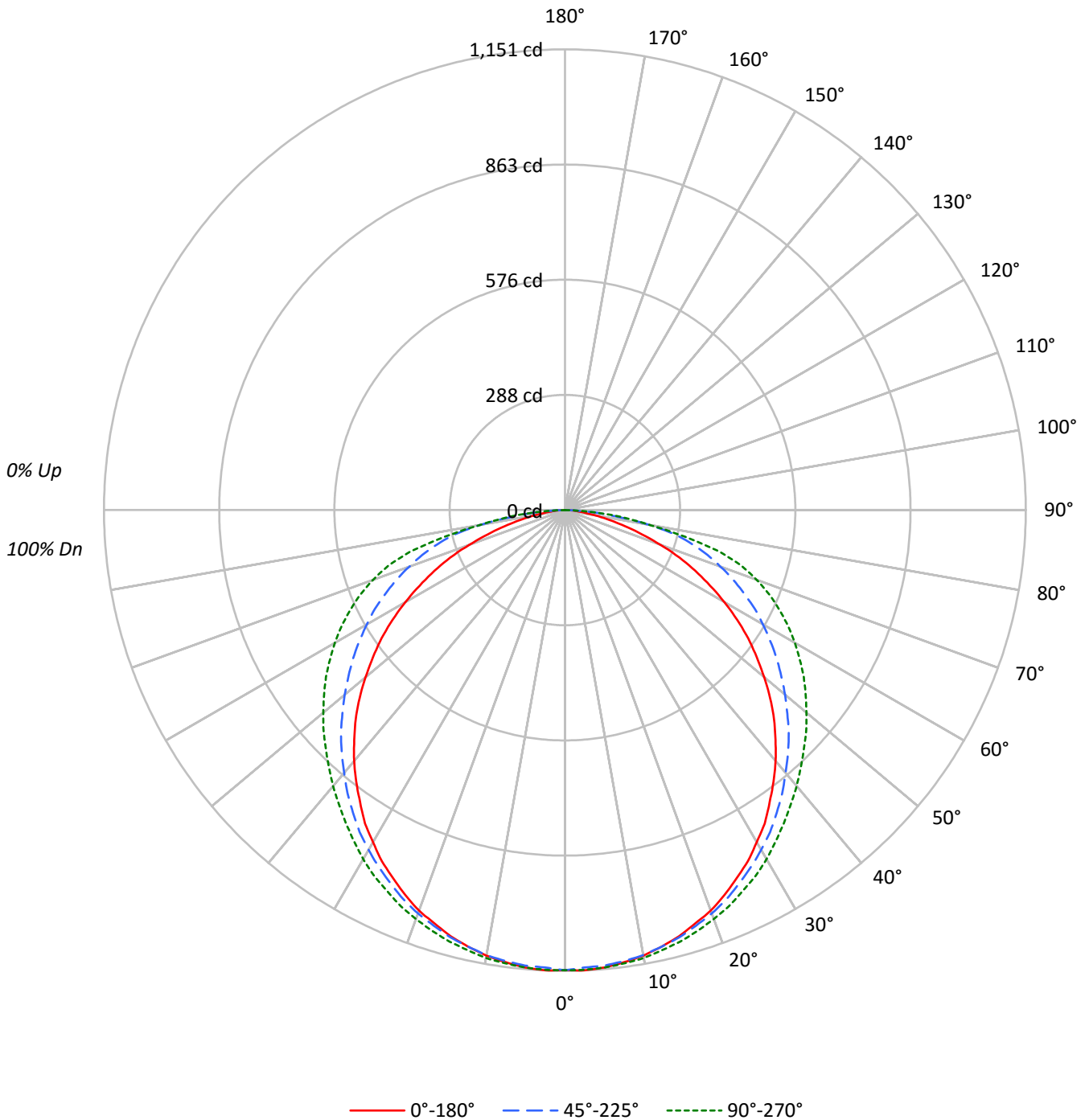
Lumens per Lamp: N/A  
Luminaire Lumens: 3543.0 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P309571

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-HRP-CP125-W2A-U-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P309571

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-HRP-CP125-W2A-U-6500K

**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°	1547	1547	1547
5°	1549	1543	1549
10°	1544	1542	1552
15°	1535	1539	1554
20°	1525	1536	1557
25°	1506	1528	1559
30°	1489	1523	1565
35°	1464	1515	1566
40°	1438	1506	1581
45°	1406	1504	1606
50°	1360	1503	1649
55°	1312	1514	1708
60°	1237	1537	1784
65°	1143	1572	1884
70°	998	1628	2007
75°	809	1712	2074
80°	597	1678	1678
85°	459	1237	1397



TEST NUMBER: P309571

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-HRP-CP125-W2A-U-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.9	3.1
10°-20°	312.7	8.8
20°-30°	476.1	13.4
30°-40°	578.0	16.3
40°-50°	610.7	17.2
50°-60°	576.3	16.3
60°-70°	479.1	13.5
70°-80°	315.2	8.9
80°-90°	85.9	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°	897.7	25.3
0°-40°	1475.7	41.7
0°-60°	2662.7	75.2
0°-90°	3543.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3543.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1150	1150	1150	1150	1150	
5°	1147	1147	1142	1147	1147	109
15°	1102	1104	1105	1115	1115	311
25°	1015	1020	1029	1047	1050	468
35°	891	902	923	946	954	558
45°	739	754	791	829	844	569
55°	559	583	645	706	728	498
65°	359	400	494	567	592	355
75°	156	227	329	390	399	168
85°	30	65	80	89	90	36
90°	0	0	0	0	0	



TEST NUMBER: P309571

CATALOG NUMBER: 24FCZ2-50-UNV-L82765-HRP-CP125-W2A-U-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1149.5	1149.5	1149.5	1149.5	1149.5
2.5°	1151.0	1149.5	1143.6	1149.5	1149.5
5°	1146.6	1146.6	1142.1	1146.6	1146.6
7.5°	1139.1	1139.1	1136.2	1142.1	1142.1
10°	1130.2	1130.2	1128.8	1136.2	1136.2
12.5°	1116.9	1118.4	1116.9	1125.8	1125.8
15°	1102.1	1103.5	1105.0	1115.4	1115.4
17.5°	1082.8	1085.7	1088.7	1100.6	1102.1
20°	1065.0	1066.5	1072.4	1085.7	1087.2
22.5°	1041.3	1045.7	1053.1	1066.5	1070.9
25°	1014.6	1020.5	1029.4	1047.2	1050.2
27.5°	989.3	993.8	1005.7	1024.9	1030.9
30°	958.2	965.6	980.4	999.7	1007.1
32.5°	928.5	935.9	953.7	974.5	980.4
35°	891.4	901.8	922.6	946.3	953.7
37.5°	855.8	866.2	891.4	918.1	927.0
40°	818.8	830.6	857.3	888.5	900.3
42.5°	778.7	795.0	824.7	858.8	872.2
45°	738.7	753.5	790.6	829.1	844.0
47.5°	695.7	713.4	753.5	799.5	817.3
50°	649.7	671.9	717.9	768.3	787.6
52.5°	603.7	628.9	680.8	737.2	757.9
55°	559.2	582.9	645.2	706.0	728.3
57.5°	510.2	539.9	608.1	673.4	695.7
60°	459.8	492.4	571.1	639.3	663.0
62.5°	409.4	446.5	535.5	603.7	628.9
65°	358.9	400.5	493.9	566.6	591.8
67.5°	310.0	356.0	455.4	528.0	553.3
70°	253.6	311.5	413.8	485.0	510.2
72.5°	201.7	268.5	373.8	440.5	462.8
75°	155.7	226.9	329.3	390.1	399.0
77.5°	114.2	185.4	283.3	304.1	305.6
80°	77.1	148.3	216.6	213.6	216.6
82.5°	50.4	111.2	136.5	152.8	154.3
85°	29.7	65.3	80.1	89.0	90.5
87.5°	14.8	22.2	28.2	29.7	32.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)