

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: P313252

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-HRP-CP125-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: P313252  
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: 24FCZ2-50HE-UNV-L83050-HRP-CP125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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**

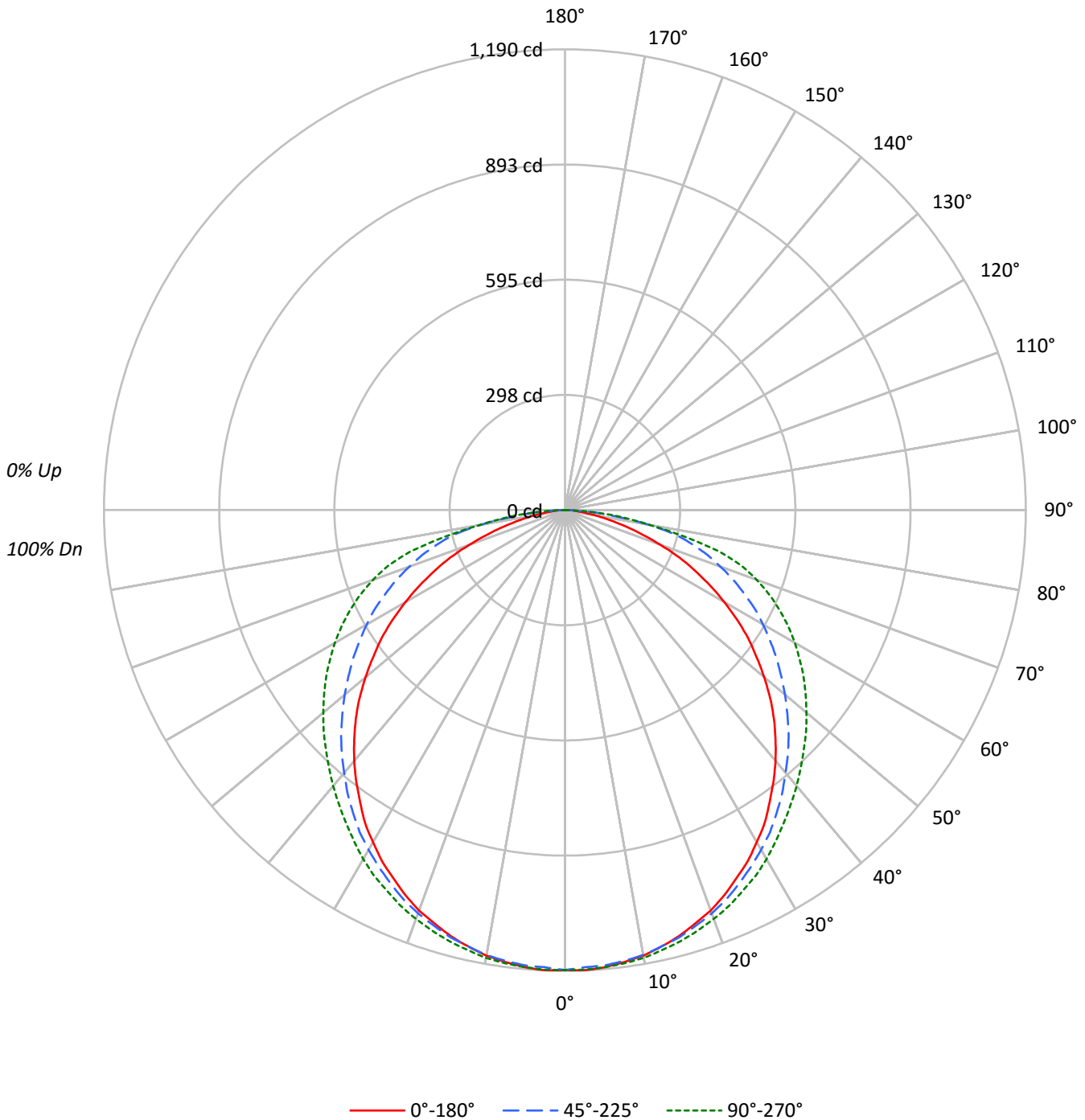
Lumens per Lamp: N/A  
Luminaire Lumens: 3662.0 lumens  
Efficiency: N/A  
Efficacy: 93.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 39.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P313252

CATALOG NUMBER: 24FCZ2-50HE-UNV-L83050-HRP-CP125-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P313252

CATALOG NUMBER: 24FCZ2-50HE-UNV-L83050-HRP-CP125-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	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°	1599	1599	1599
5°	1601	1594	1601
10°	1596	1594	1604
15°	1587	1591	1606
20°	1576	1587	1609
25°	1557	1580	1611
30°	1539	1574	1617
35°	1513	1566	1619
40°	1486	1556	1635
45°	1453	1555	1660
50°	1406	1553	1704
55°	1356	1564	1766
60°	1279	1588	1844
65°	1181	1625	1947
70°	1031	1683	2075
75°	837	1769	2144
80°	618	1734	1734
85°	474	1278	1443



TEST NUMBER: P313252

CATALOG NUMBER: 24FCZ2-50HE-UNV-L83050-HRP-CP125-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.6	3.1
10°-20°	323.2	8.8
20°-30°	492.1	13.4
30°-40°	597.5	16.3
40°-50°	631.2	17.2
50°-60°	595.6	16.3
60°-70°	495.2	13.5
70°-80°	325.8	8.9
80°-90°	88.8	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°	927.8	25.3
0°-40°	1525.3	41.7
0°-60°	2752.1	75.2
0°-90°	3662.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3662.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1185	1185	1180	1185	1185	113
15°	1139	1141	1142	1153	1153	321
25°	1049	1055	1064	1082	1085	484
35°	921	932	954	978	986	577
45°	764	779	817	857	872	588
55°	578	602	667	730	753	515
65°	371	414	510	586	612	367
75°	161	235	340	403	412	173
85°	31	68	83	92	94	38
90°	0	0	0	0	0	



TEST NUMBER: P313252

CATALOG NUMBER: 24FCZ2-50HE-UNV-L83050-HRP-CP125-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1188.1	1188.1	1188.1	1188.1	1188.1
2.5°	1189.7	1188.1	1182.0	1188.1	1188.1
5°	1185.1	1185.1	1180.5	1185.1	1185.1
7.5°	1177.4	1177.4	1174.3	1180.5	1180.5
10°	1168.2	1168.2	1166.7	1174.3	1174.3
12.5°	1154.4	1155.9	1154.4	1163.6	1163.6
15°	1139.1	1140.6	1142.1	1152.9	1152.9
17.5°	1119.2	1122.2	1125.3	1137.5	1139.1
20°	1100.8	1102.3	1108.4	1122.2	1123.7
22.5°	1076.2	1080.8	1088.5	1102.3	1106.9
25°	1048.6	1054.8	1064.0	1082.4	1085.4
27.5°	1022.6	1027.2	1039.4	1059.4	1065.5
30°	990.4	998.0	1013.4	1033.3	1041.0
32.5°	959.7	967.4	985.8	1007.2	1013.4
35°	921.4	932.1	953.6	978.1	985.8
37.5°	884.6	895.3	921.4	949.0	958.2
40°	846.3	858.5	886.1	918.3	930.6
42.5°	804.9	821.7	852.4	887.7	901.5
45°	763.5	778.8	817.1	857.0	872.3
47.5°	719.0	737.4	778.8	826.3	844.7
50°	671.5	694.5	742.0	794.1	814.1
52.5°	624.0	650.0	703.7	761.9	783.4
55°	578.0	602.5	666.9	729.7	752.7
57.5°	527.4	558.0	628.6	696.0	719.0
60°	475.3	509.0	590.2	660.8	685.3
62.5°	423.1	461.5	553.4	624.0	650.0
65°	371.0	413.9	510.5	585.6	611.7
67.5°	320.4	367.9	470.7	545.8	571.8
70°	262.2	321.9	427.7	501.3	527.4
72.5°	208.5	277.5	386.3	455.3	478.3
75°	161.0	234.6	340.3	403.2	412.4
77.5°	118.0	191.6	292.8	314.3	315.8
80°	79.7	153.3	223.8	220.8	223.8
82.5°	52.1	115.0	141.0	157.9	159.4
85°	30.7	67.5	82.8	92.0	93.5
87.5°	15.3	23.0	29.1	30.7	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)