

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: P310869

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-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: P310869  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
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-L82765-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED 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**

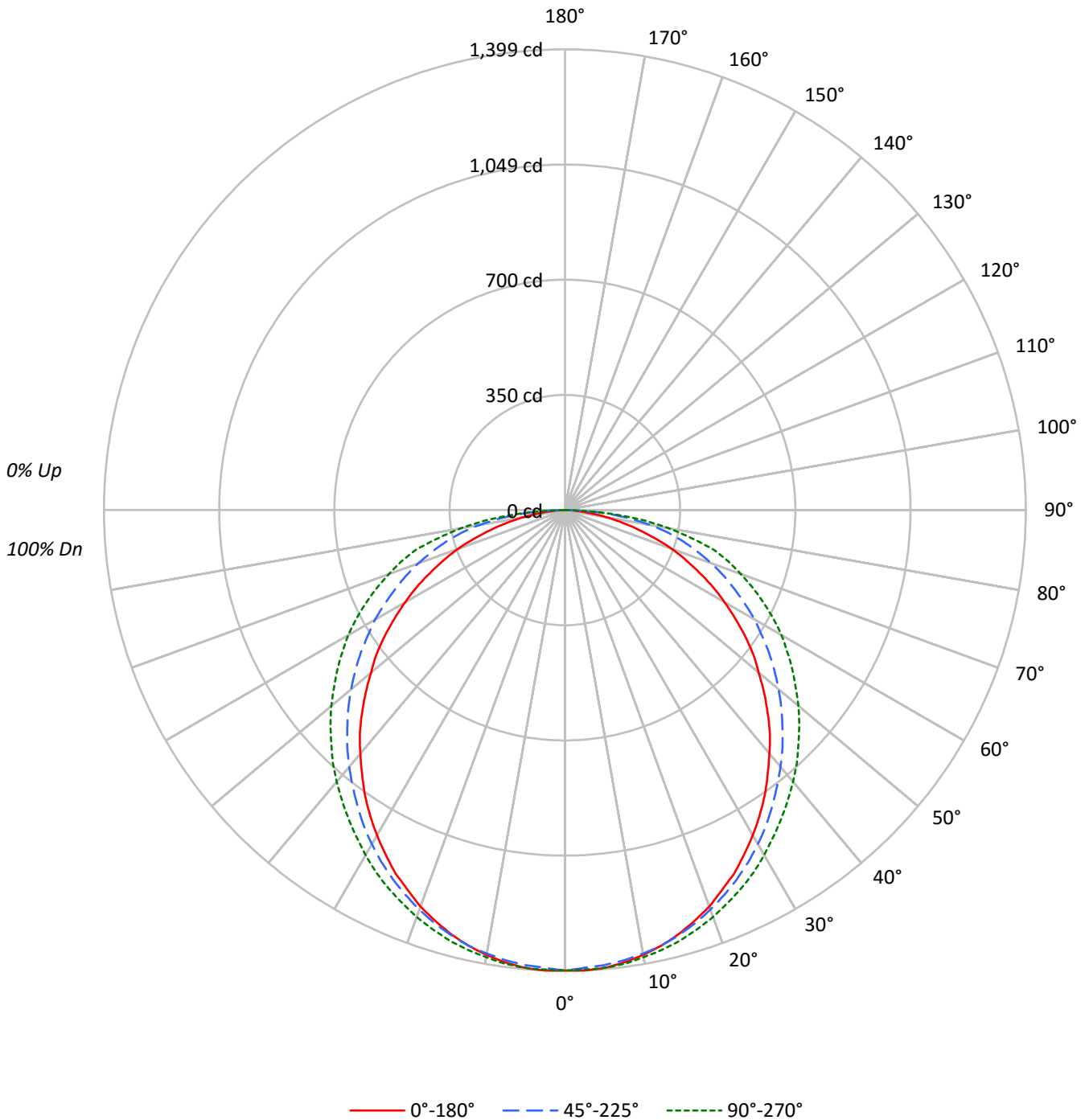
Lumens per Lamp: N/A  
Luminaire Lumens: 4239.0 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	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	25	35	29	24	23

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

	0°	45°	90°
0°	1881	1881	1881
5°	1884	1873	1884
10°	1874	1868	1883
15°	1857	1861	1885
20°	1835	1849	1883
25°	1806	1835	1881
30°	1772	1820	1879
35°	1737	1802	1880
40°	1697	1789	1892
45°	1657	1777	1908
50°	1607	1772	1937
55°	1567	1775	1976
60°	1506	1790	2044
65°	1437	1809	2118
70°	1361	1865	2235
75°	1214	1945	2442
80°	1035	2060	2496
85°	738	2041	2388



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.3	3.1
10°-20°	378.3	8.9
20°-30°	571.4	13.5
30°-40°	688.7	16.2
40°-50°	723.0	17.1
50°-60°	676.4	16.0
60°-70°	558.6	13.2
70°-80°	380.6	9.0
80°-90°	129.8	3.1
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°	1082.0	25.5
0°-40°	1770.7	41.8
0°-60°	3170.0	74.8
0°-90°	4239.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4239.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1395	1394	1387	1395	1395	132
15°	1333	1335	1336	1350	1353	376
25°	1217	1222	1236	1260	1267	560
35°	1058	1069	1097	1134	1145	661
45°	871	889	934	984	1003	671
55°	668	695	757	818	842	596
65°	452	489	568	640	665	448
75°	234	287	374	444	470	249
85°	48	94	132	149	155	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1398.0	1398.0	1398.0	1398.0	1398.0
2.5°	1399.4	1398.0	1391.0	1398.0	1396.6
5°	1395.2	1393.8	1386.7	1395.2	1395.2
7.5°	1385.3	1385.3	1378.3	1388.1	1389.5
10°	1371.3	1371.3	1367.0	1378.3	1378.3
12.5°	1354.4	1354.4	1354.4	1365.6	1367.0
15°	1333.3	1334.7	1336.1	1350.2	1353.0
17.5°	1308.0	1310.8	1315.0	1331.9	1334.7
20°	1281.3	1284.1	1291.1	1310.8	1315.0
22.5°	1247.5	1254.5	1264.4	1286.9	1291.1
25°	1216.6	1222.2	1236.2	1260.2	1267.2
27.5°	1178.6	1187.0	1205.3	1230.6	1240.5
30°	1140.6	1149.0	1171.6	1201.1	1209.5
32.5°	1099.8	1112.5	1136.4	1167.3	1177.2
35°	1057.6	1068.9	1097.0	1133.6	1144.8
37.5°	1011.2	1026.7	1057.6	1097.0	1111.1
40°	966.2	983.1	1018.3	1060.4	1077.3
42.5°	921.2	938.1	977.5	1025.3	1042.2
45°	870.6	888.9	933.9	984.5	1002.8
47.5°	819.9	842.4	891.7	945.1	964.8
50°	767.9	793.2	846.7	902.9	925.4
52.5°	721.5	745.4	801.7	862.1	883.2
55°	668.1	694.8	756.7	818.5	842.4
57.5°	613.2	642.7	708.8	776.3	800.3
60°	559.8	592.1	665.2	732.7	759.5
62.5°	507.7	540.1	616.0	686.3	713.1
65°	451.5	489.4	568.2	639.9	665.2
67.5°	398.0	438.8	521.8	592.1	617.4
70°	346.0	385.4	474.0	542.9	568.2
72.5°	289.7	334.7	423.3	495.1	521.8
75°	233.5	286.9	374.1	444.4	469.7
77.5°	181.4	236.3	323.5	381.1	393.8
80°	133.6	189.9	265.8	306.6	322.1
82.5°	85.8	142.0	202.5	232.1	244.7
85°	47.8	94.2	132.2	149.1	154.7
87.5°	19.7	40.8	53.4	60.5	60.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)