

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: P310867

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-CA125-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: P310867  
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-CA125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 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**

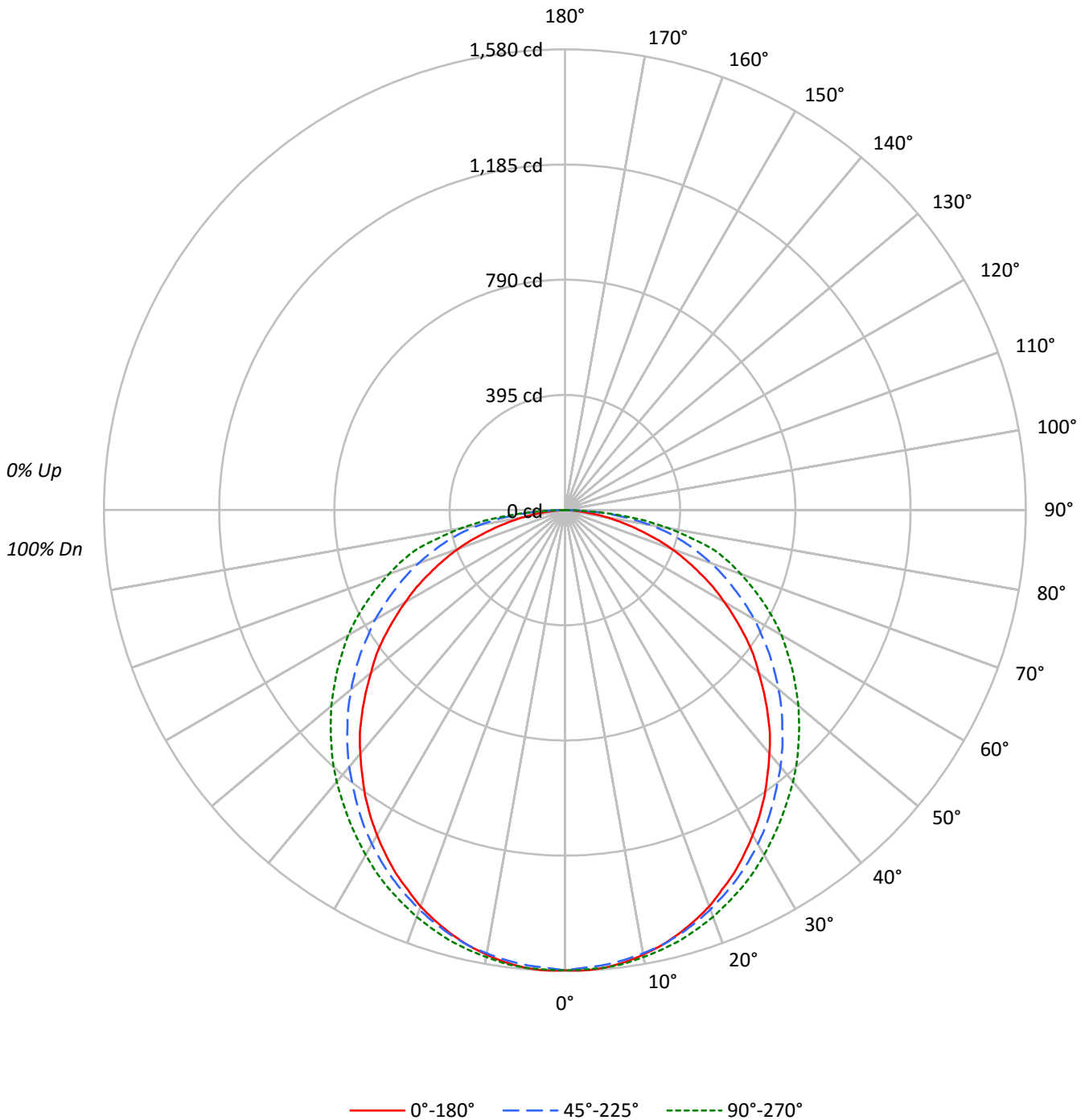
Lumens per Lamp: N/A  
Luminaire Lumens: 4786.0 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 40.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2124	2124	2124
5°	2128	2115	2128
10°	2115	2109	2126
15°	2097	2101	2128
20°	2071	2087	2126
25°	2039	2072	2124
30°	2001	2055	2122
35°	1961	2034	2123
40°	1916	2019	2136
45°	1870	2006	2154
50°	1815	2001	2187
55°	1769	2004	2231
60°	1701	2021	2308
65°	1623	2042	2391
70°	1537	2105	2524
75°	1370	2196	2757
80°	1169	2325	2817
85°	834	2305	2697



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.4	3.1
10°-20°	427.1	8.9
20°-30°	645.1	13.5
30°-40°	777.5	16.2
40°-50°	816.3	17.1
50°-60°	763.7	16.0
60°-70°	630.6	13.2
70°-80°	429.7	9.0
80°-90°	146.6	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°	1221.6	25.5
0°-40°	1999.1	41.8
0°-60°	3579.1	74.8
0°-90°	4786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4786.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1578	1578	1578	1578	1578	
5°	1575	1574	1566	1575	1575	149
15°	1505	1507	1508	1524	1528	424
25°	1374	1380	1396	1423	1431	632
35°	1194	1207	1239	1280	1293	746
45°	983	1004	1054	1112	1132	758
55°	754	784	854	924	951	673
65°	510	553	642	722	751	506
75°	264	324	422	502	530	281
85°	54	106	149	168	175	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1578.4	1578.4	1578.4	1578.4	1578.4
2.5°	1580.0	1578.4	1570.4	1578.4	1576.8
5°	1575.2	1573.6	1565.7	1575.2	1575.2
7.5°	1564.1	1564.1	1556.2	1567.3	1568.9
10°	1548.2	1548.2	1543.4	1556.2	1556.2
12.5°	1529.2	1529.2	1529.2	1541.9	1543.4
15°	1505.3	1506.9	1508.5	1524.4	1527.6
17.5°	1476.8	1479.9	1484.7	1503.7	1506.9
20°	1446.6	1449.8	1457.7	1479.9	1484.7
22.5°	1408.5	1416.4	1427.5	1452.9	1457.7
25°	1373.5	1379.9	1395.8	1422.8	1430.7
27.5°	1330.7	1340.2	1360.8	1389.4	1400.5
30°	1287.8	1297.3	1322.7	1356.1	1365.6
32.5°	1241.7	1256.0	1283.0	1318.0	1329.1
35°	1194.1	1206.8	1238.6	1279.9	1292.6
37.5°	1141.7	1159.2	1194.1	1238.6	1254.4
40°	1090.9	1109.9	1149.6	1197.3	1216.3
42.5°	1040.1	1059.1	1103.6	1157.6	1176.6
45°	982.9	1003.6	1054.4	1111.5	1132.2
47.5°	925.8	951.2	1006.7	1067.1	1089.3
50°	867.0	895.6	955.9	1019.4	1044.8
52.5°	814.6	841.6	905.1	973.4	997.2
55°	754.3	784.4	854.3	924.2	951.2
57.5°	692.3	725.7	800.3	876.5	903.5
60°	632.0	668.5	751.1	827.3	857.5
62.5°	573.2	609.8	695.5	774.9	805.1
65°	509.7	552.6	641.5	722.5	751.1
67.5°	449.4	495.4	589.1	668.5	697.1
70°	390.6	435.1	535.1	612.9	641.5
72.5°	327.1	377.9	478.0	558.9	589.1
75°	263.6	323.9	422.4	501.8	530.4
77.5°	204.8	266.8	365.2	430.3	444.6
80°	150.9	214.4	300.1	346.2	363.6
82.5°	96.9	160.4	228.7	262.0	276.3
85°	54.0	106.4	149.3	168.3	174.7
87.5°	22.2	46.0	60.3	68.3	68.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)