

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: P314100

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-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: P314100  
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: 24FCZ2-65HE-UNV-L83050-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**

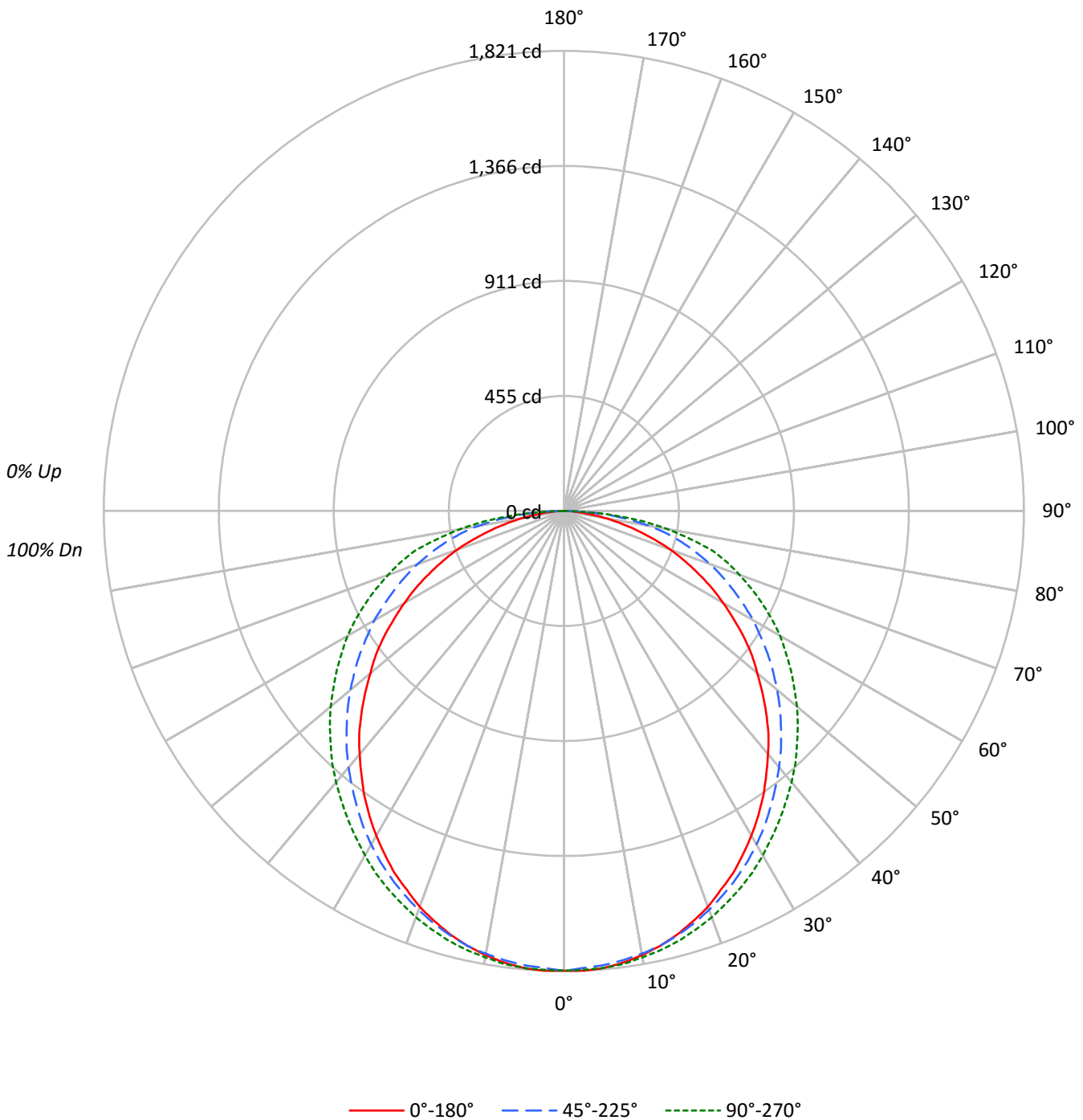
Lumens per Lamp: N/A  
Luminaire Lumens: 5517.0 lumens  
Efficiency: N/A  
Efficacy: 105.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 52.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2448	2448	2448
5°	2452	2438	2452
10°	2438	2431	2451
15°	2417	2422	2453
20°	2388	2406	2451
25°	2351	2389	2448
30°	2306	2369	2446
35°	2261	2345	2447
40°	2209	2328	2463
45°	2156	2313	2483
50°	2092	2307	2521
55°	2040	2310	2572
60°	1960	2330	2660
65°	1871	2354	2756
70°	1771	2427	2909
75°	1580	2531	3178
80°	1347	2681	3248
85°	960	2657	3108



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.2	3.1
10°-20°	492.4	8.9
20°-30°	743.7	13.5
30°-40°	896.3	16.2
40°-50°	940.9	17.1
50°-60°	880.3	16.0
60°-70°	727.0	13.2
70°-80°	495.4	9.0
80°-90°	168.9	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°	1408.2	25.5
0°-40°	2304.5	41.8
0°-60°	4125.7	74.8
0°-90°	5517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5517.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1820	1820	1820	1820	1820	
5°	1816	1814	1805	1816	1816	172
15°	1735	1737	1739	1757	1761	489
25°	1583	1591	1609	1640	1649	728
35°	1376	1391	1428	1475	1490	860
45°	1133	1157	1215	1281	1305	874
55°	870	904	985	1065	1096	776
65°	588	637	740	833	866	583
75°	304	373	487	578	611	324
85°	62	123	172	194	201	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1819.5	1819.5	1819.5	1819.5	1819.5
2.5°	1821.3	1819.5	1810.3	1819.5	1817.6
5°	1815.8	1814.0	1804.8	1815.8	1815.8
7.5°	1803.0	1803.0	1793.8	1806.6	1808.5
10°	1784.7	1784.7	1779.2	1793.8	1793.8
12.5°	1762.7	1762.7	1762.7	1777.4	1779.2
15°	1735.3	1737.1	1738.9	1757.2	1760.9
17.5°	1702.3	1706.0	1711.5	1733.4	1737.1
20°	1667.5	1671.2	1680.3	1706.0	1711.5
22.5°	1623.6	1632.8	1645.6	1674.9	1680.3
25°	1583.3	1590.7	1609.0	1640.1	1649.2
27.5°	1533.9	1544.9	1568.7	1601.6	1614.4
30°	1484.5	1495.5	1524.8	1563.2	1574.2
32.5°	1431.4	1447.9	1479.0	1519.3	1532.1
35°	1376.5	1391.1	1427.7	1475.3	1490.0
37.5°	1316.1	1336.2	1376.5	1427.7	1446.0
40°	1257.5	1279.5	1325.2	1380.2	1402.1
42.5°	1198.9	1220.9	1272.2	1334.4	1356.4
45°	1133.0	1156.8	1215.4	1281.3	1305.1
47.5°	1067.1	1096.4	1160.5	1230.1	1255.7
50°	999.4	1032.4	1101.9	1175.1	1204.4
52.5°	939.0	970.1	1043.4	1122.1	1149.5
55°	869.5	904.2	984.8	1065.3	1096.4
57.5°	798.1	836.5	922.5	1010.4	1041.5
60°	728.5	770.6	865.8	953.7	988.4
62.5°	660.8	702.9	801.7	893.3	928.0
65°	587.6	637.0	739.5	832.9	865.8
67.5°	518.0	571.1	679.1	770.6	803.6
70°	450.3	501.5	616.9	706.6	739.5
72.5°	377.1	435.6	551.0	644.3	679.1
75°	303.9	373.4	486.9	578.4	611.4
77.5°	236.1	307.5	421.0	496.0	512.5
80°	173.9	247.1	346.0	399.0	419.2
82.5°	111.7	184.9	263.6	302.0	318.5
85°	62.2	122.6	172.1	194.0	201.3
87.5°	25.6	53.1	69.6	78.7	78.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)