

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: P314101

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-CP125-W2A-U-3500K**

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: P314101  
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-3500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 3500K 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**

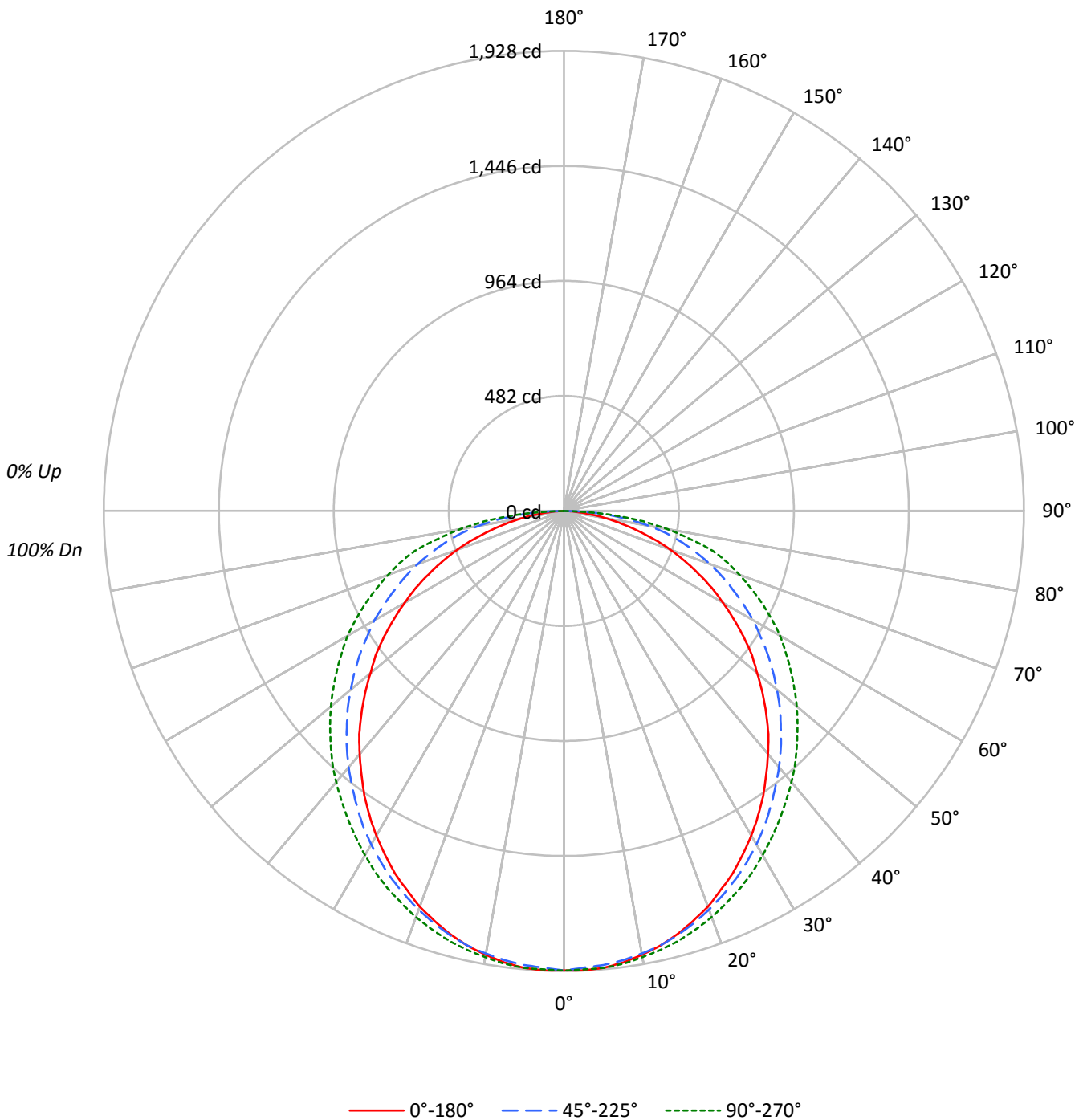
Lumens per Lamp: N/A  
Luminaire Lumens: 5839.0 lumens  
Efficiency: N/A  
Efficacy: 111.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 52.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2591	2591	2591
5°	2596	2580	2596
10°	2581	2573	2594
15°	2558	2564	2596
20°	2527	2546	2594
25°	2488	2528	2591
30°	2441	2507	2589
35°	2393	2482	2590
40°	2338	2464	2607
45°	2282	2448	2628
50°	2214	2441	2668
55°	2159	2445	2722
60°	2075	2466	2815
65°	1980	2492	2917
70°	1875	2568	3079
75°	1672	2679	3363
80°	1426	2837	3437
85°	1017	2811	3290



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	182.2	3.1
10°-20°	521.1	8.9
20°-30°	787.1	13.5
30°-40°	948.6	16.2
40°-50°	995.9	17.1
50°-60°	931.7	16.0
60°-70°	769.4	13.2
70°-80°	524.3	9.0
80°-90°	178.8	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°	1490.4	25.5
0°-40°	2439.0	41.8
0°-60°	4366.5	74.8
0°-90°	5839.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5839.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1926	1926	1926	1926	1926	
5°	1922	1920	1910	1922	1922	182
15°	1836	1838	1840	1860	1864	518
25°	1676	1684	1703	1736	1746	771
35°	1457	1472	1511	1561	1577	910
45°	1199	1224	1286	1356	1381	925
55°	920	957	1042	1128	1160	821
65°	622	674	783	882	916	617
75°	322	395	515	612	647	343
85°	66	130	182	205	213	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1925.7	1925.7	1925.7	1925.7	1925.7
2.5°	1927.6	1925.7	1916.0	1925.7	1923.7
5°	1921.8	1919.8	1910.2	1921.8	1921.8
7.5°	1908.2	1908.2	1898.5	1912.1	1914.0
10°	1888.8	1888.8	1883.0	1898.5	1898.5
12.5°	1865.6	1865.6	1865.6	1881.1	1883.0
15°	1836.5	1838.5	1840.4	1859.8	1863.7
17.5°	1801.7	1805.5	1811.4	1834.6	1838.5
20°	1764.9	1768.7	1778.4	1805.5	1811.4
22.5°	1718.4	1728.0	1741.6	1772.6	1778.4
25°	1675.7	1683.5	1702.9	1735.8	1745.5
27.5°	1623.4	1635.1	1660.2	1695.1	1708.7
30°	1571.1	1582.8	1613.8	1654.4	1666.1
32.5°	1514.9	1532.4	1565.3	1607.9	1621.5
35°	1456.8	1472.3	1511.1	1561.4	1576.9
37.5°	1392.9	1414.2	1456.8	1511.1	1530.4
40°	1330.9	1354.2	1402.6	1460.7	1484.0
42.5°	1268.9	1292.2	1346.4	1412.3	1435.5
45°	1199.2	1224.4	1286.4	1356.1	1381.3
47.5°	1129.4	1160.4	1228.2	1301.8	1329.0
50°	1057.8	1092.6	1166.2	1243.7	1274.7
52.5°	993.8	1026.8	1104.2	1187.5	1216.6
55°	920.2	957.0	1042.3	1127.5	1160.4
57.5°	844.7	885.3	976.4	1069.4	1102.3
60°	771.0	815.6	916.3	1009.3	1046.1
62.5°	699.4	743.9	848.5	945.4	982.2
65°	621.9	674.2	782.7	881.5	916.3
67.5°	548.2	604.4	718.7	815.6	850.5
70°	476.6	530.8	652.9	747.8	782.7
72.5°	399.1	461.1	583.1	681.9	718.7
75°	321.6	395.2	515.3	612.2	647.0
77.5°	249.9	325.5	445.6	525.0	542.4
80°	184.0	261.5	366.1	422.3	443.6
82.5°	118.2	195.7	279.0	319.7	337.1
85°	65.9	129.8	182.1	205.4	213.1
87.5°	27.1	56.2	73.6	83.3	83.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)