

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: P311159

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CP250-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: P311159  
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: 24FCZ2-75HE-UNV-L82765-CP250-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" 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**

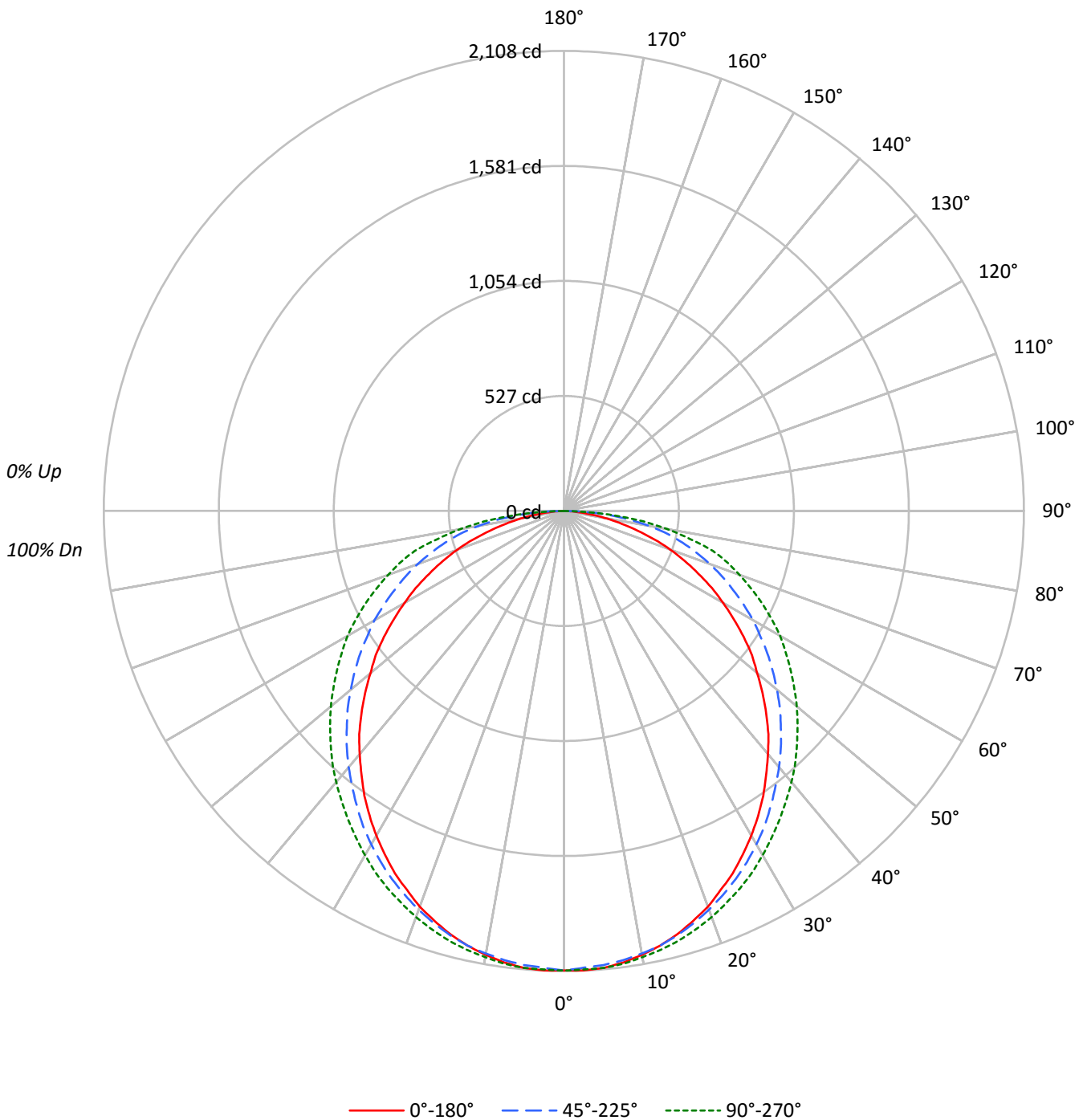
Lumens per Lamp: N/A  
Luminaire Lumens: 6384.0 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 63.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2833	2833	2833
5°	2838	2821	2838
10°	2821	2813	2836
15°	2797	2803	2838
20°	2763	2784	2836
25°	2720	2764	2833
30°	2669	2741	2830
35°	2616	2714	2832
40°	2556	2693	2850
45°	2495	2676	2874
50°	2421	2669	2917
55°	2360	2673	2976
60°	2268	2696	3078
65°	2165	2724	3190
70°	2050	2808	3366
75°	1828	2929	3677
80°	1559	3102	3758
85°	1112	3074	3597



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	199.2	3.1
10°-20°	569.7	8.9
20°-30°	860.5	13.5
30°-40°	1037.1	16.2
40°-50°	1088.8	17.1
50°-60°	1018.6	16.0
60°-70°	841.2	13.2
70°-80°	573.2	9.0
80°-90°	195.5	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°	1629.5	25.5
0°-40°	2666.6	41.8
0°-60°	4774.1	74.8
0°-90°	6384.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6384.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2105	2105	2105	2105	2105	
5°	2101	2099	2088	2101	2101	199
15°	2008	2010	2012	2033	2038	566
25°	1832	1841	1862	1898	1908	843
35°	1593	1610	1652	1707	1724	995
45°	1311	1339	1406	1483	1510	1011
55°	1006	1046	1140	1233	1269	898
65°	680	737	856	964	1002	674
75°	352	432	563	669	707	375
85°	72	142	199	224	233	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2105.4	2105.4	2105.4	2105.4	2105.4
2.5°	2107.5	2105.4	2094.8	2105.4	2103.3
5°	2101.2	2099.0	2088.4	2101.2	2101.2
7.5°	2086.3	2086.3	2075.7	2090.6	2092.7
10°	2065.1	2065.1	2058.8	2075.7	2075.7
12.5°	2039.7	2039.7	2039.7	2056.7	2058.8
15°	2008.0	2010.1	2012.2	2033.4	2037.6
17.5°	1969.8	1974.1	1980.4	2005.8	2010.1
20°	1929.6	1933.8	1944.4	1974.1	1980.4
22.5°	1878.8	1889.3	1904.2	1938.1	1944.4
25°	1832.2	1840.6	1861.8	1897.8	1908.4
27.5°	1775.0	1787.7	1815.2	1853.3	1868.2
30°	1717.8	1730.5	1764.4	1808.9	1821.6
32.5°	1656.4	1675.4	1711.4	1758.0	1772.8
35°	1592.8	1609.8	1652.1	1707.2	1724.1
37.5°	1522.9	1546.2	1592.8	1652.1	1673.3
40°	1455.1	1480.5	1533.5	1597.0	1622.5
42.5°	1387.4	1412.8	1472.1	1544.1	1569.5
45°	1311.1	1338.6	1406.4	1482.7	1510.2
47.5°	1234.9	1268.7	1342.9	1423.4	1453.0
50°	1156.5	1194.6	1275.1	1359.8	1393.7
52.5°	1086.6	1122.6	1207.3	1298.4	1330.2
55°	1006.1	1046.3	1139.5	1232.7	1268.7
57.5°	923.5	968.0	1067.5	1169.2	1205.2
60°	843.0	891.7	1001.9	1103.5	1143.8
62.5°	764.6	813.3	927.7	1033.6	1073.9
65°	679.9	737.1	855.7	963.7	1001.9
67.5°	599.4	660.8	785.8	891.7	929.8
70°	521.1	580.4	713.8	817.6	855.7
72.5°	436.3	504.1	637.5	745.6	785.8
75°	351.6	432.1	563.4	669.3	707.4
77.5°	273.2	355.8	487.2	574.0	593.1
80°	201.2	285.9	400.3	461.7	485.0
82.5°	129.2	213.9	305.0	349.5	368.5
85°	72.0	141.9	199.1	224.5	233.0
87.5°	29.7	61.4	80.5	91.1	91.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)