

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: P314097

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-CA125-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: P314097  
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-CA125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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**

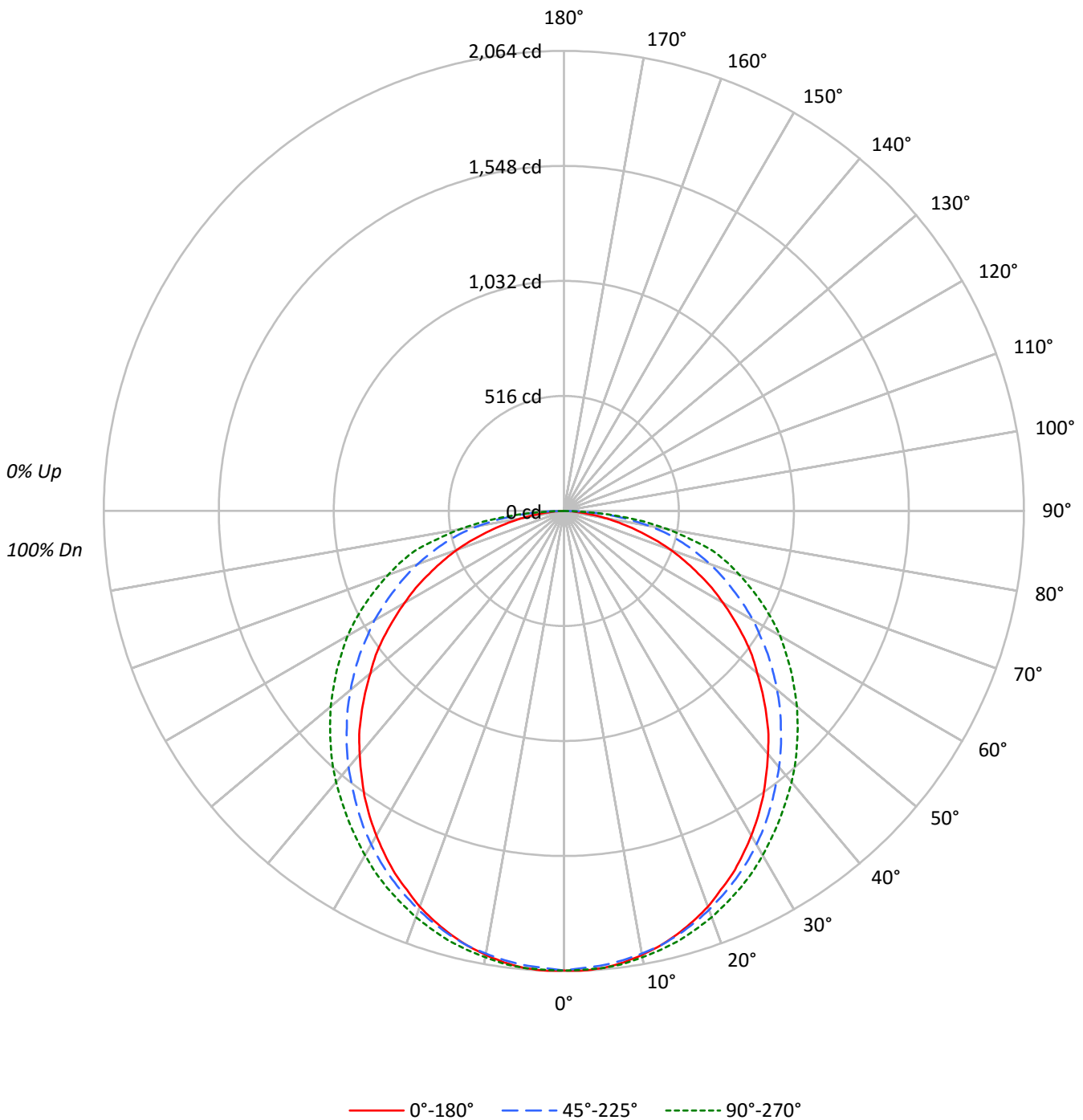
Lumens per Lamp: N/A  
Luminaire Lumens: 6252.0 lumens  
Efficiency: N/A  
Efficacy: 116.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 53.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2774	2774	2774
5°	2779	2762	2779
10°	2763	2755	2777
15°	2739	2745	2780
20°	2706	2727	2777
25°	2664	2707	2775
30°	2614	2685	2772
35°	2562	2658	2773
40°	2503	2638	2791
45°	2443	2621	2814
50°	2371	2614	2857
55°	2311	2618	2915
60°	2222	2640	3014
65°	2120	2668	3124
70°	2007	2750	3297
75°	1790	2869	3602
80°	1527	3037	3680
85°	1088	3010	3523



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.1	3.1
10°-20°	558.0	8.9
20°-30°	842.7	13.5
30°-40°	1015.7	16.2
40°-50°	1066.3	17.1
50°-60°	997.6	16.0
60°-70°	823.8	13.2
70°-80°	561.4	9.0
80°-90°	191.5	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°	1595.8	25.5
0°-40°	2611.5	41.8
0°-60°	4675.4	74.8
0°-90°	6252.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6252.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2062	2062	2062	2062	2062	
5°	2058	2056	2045	2058	2058	195
15°	1966	1968	1971	1991	1996	554
25°	1794	1803	1823	1859	1869	826
35°	1560	1576	1618	1672	1688	975
45°	1284	1311	1377	1452	1479	990
55°	985	1025	1116	1207	1242	879
65°	666	722	838	944	981	660
75°	344	423	552	656	693	367
85°	70	139	195	220	228	88
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2061.9	2061.9	2061.9	2061.9	2061.9
2.5°	2063.9	2061.9	2051.5	2061.9	2059.8
5°	2057.7	2055.6	2045.3	2057.7	2057.7
7.5°	2043.2	2043.2	2032.8	2047.3	2049.4
10°	2022.4	2022.4	2016.2	2032.8	2032.8
12.5°	1997.6	1997.6	1997.6	2014.1	2016.2
15°	1966.4	1968.5	1970.6	1991.3	1995.5
17.5°	1929.1	1933.2	1939.5	1964.4	1968.5
20°	1889.7	1893.8	1904.2	1933.2	1939.5
22.5°	1839.9	1850.3	1864.8	1898.0	1904.2
25°	1794.3	1802.6	1823.3	1858.6	1868.9
27.5°	1738.3	1750.7	1777.7	1815.0	1829.5
30°	1682.3	1694.7	1727.9	1771.5	1783.9
32.5°	1622.1	1640.8	1676.0	1721.7	1736.2
35°	1559.9	1576.5	1618.0	1671.9	1688.5
37.5°	1491.4	1514.2	1559.9	1618.0	1638.7
40°	1425.0	1449.9	1501.8	1564.0	1588.9
42.5°	1358.7	1383.6	1441.6	1512.2	1537.1
45°	1284.0	1311.0	1377.3	1452.0	1479.0
47.5°	1209.3	1242.5	1315.1	1393.9	1423.0
50°	1132.6	1169.9	1248.7	1331.7	1364.9
52.5°	1064.1	1099.4	1182.4	1271.5	1302.7
55°	985.3	1024.7	1116.0	1207.2	1242.5
57.5°	904.4	948.0	1045.4	1145.0	1180.3
60°	825.6	873.3	981.1	1080.7	1120.1
62.5°	748.8	796.5	908.5	1012.3	1051.7
65°	665.9	721.9	838.0	943.8	981.1
67.5°	587.0	647.2	769.6	873.3	910.6
70°	510.3	568.4	699.0	800.7	838.0
72.5°	427.3	493.7	624.4	730.2	769.6
75°	344.3	423.2	551.8	655.5	692.8
77.5°	267.6	348.5	477.1	562.1	580.8
80°	197.1	280.0	392.0	452.2	475.0
82.5°	126.5	209.5	298.7	342.3	360.9
85°	70.5	139.0	195.0	219.9	228.2
87.5°	29.0	60.2	78.8	89.2	89.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)