

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: P314151

Luminaire Tested: **24FCZ2-75HE-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: P314151  
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-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**

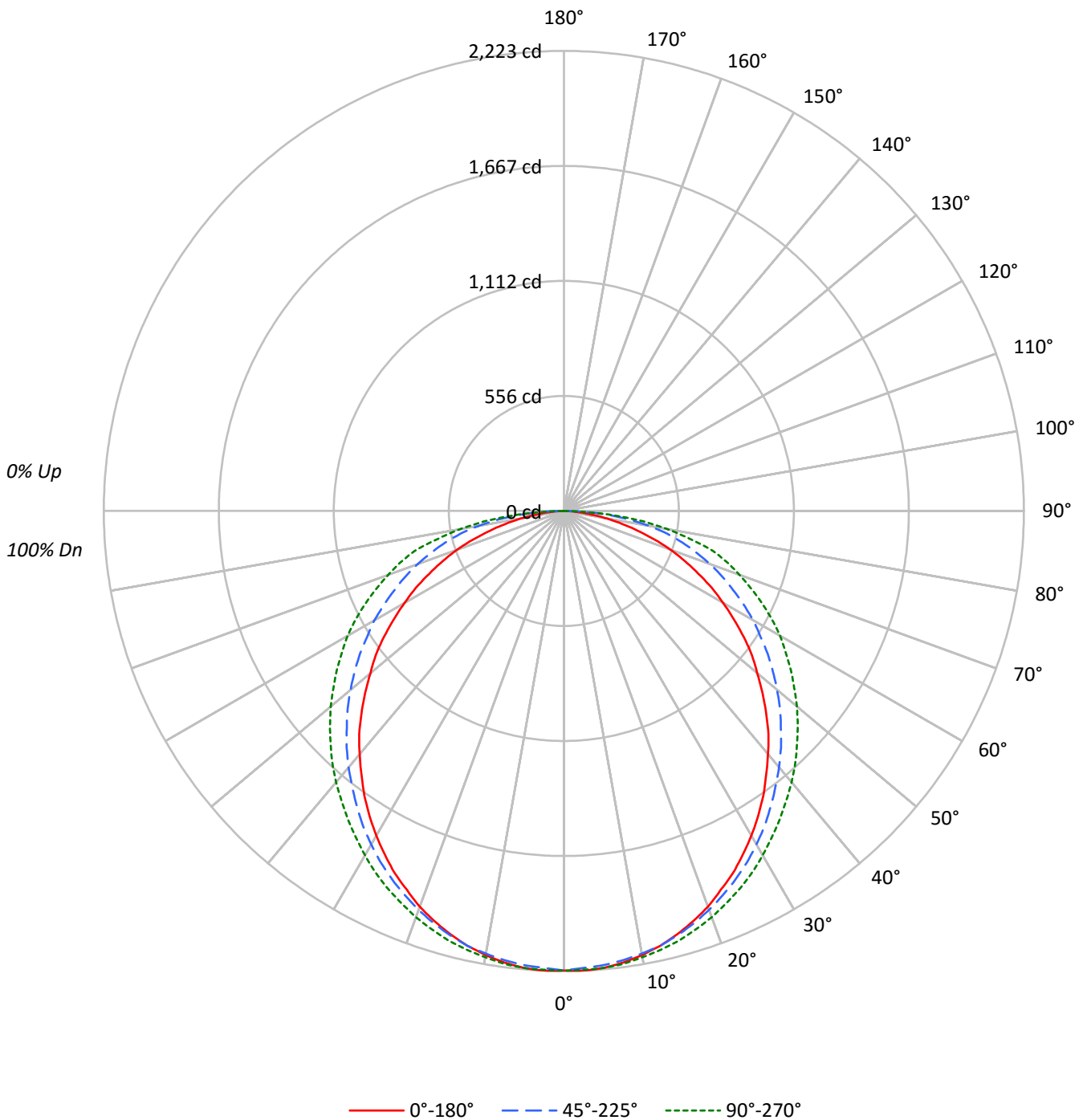
Lumens per Lamp: N/A  
Luminaire Lumens: 6734.0 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 62.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2988	2988	2988
5°	2993	2975	2993
10°	2976	2967	2991
15°	2950	2957	2994
20°	2914	2937	2991
25°	2869	2916	2988
30°	2815	2891	2985
35°	2760	2862	2987
40°	2696	2841	3006
45°	2632	2823	3031
50°	2554	2815	3077
55°	2490	2820	3139
60°	2393	2844	3247
65°	2283	2874	3365
70°	2162	2962	3551
75°	1928	3090	3879
80°	1645	3272	3964
85°	1173	3242	3795



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.2	3.1
10°-20°	601.0	8.9
20°-30°	907.7	13.5
30°-40°	1094.0	16.2
40°-50°	1148.5	17.1
50°-60°	1074.5	16.0
60°-70°	887.3	13.2
70°-80°	604.6	9.0
80°-90°	206.2	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°	1718.8	25.5
0°-40°	2812.8	41.8
0°-60°	5035.8	74.8
0°-90°	6734.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6734.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2221	2221	2221	2221	2221	
5°	2216	2214	2203	2216	2216	210
15°	2118	2120	2122	2145	2149	597
25°	1933	1942	1964	2002	2013	889
35°	1680	1698	1743	1801	1819	1050
45°	1383	1412	1484	1564	1593	1067
55°	1061	1104	1202	1300	1338	947
65°	717	778	903	1017	1057	711
75°	371	456	594	706	746	395
85°	76	150	210	237	246	95
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2220.8	2220.8	2220.8	2220.8	2220.8
2.5°	2223.0	2220.8	2209.6	2220.8	2218.6
5°	2216.3	2214.1	2202.9	2216.3	2216.3
7.5°	2200.7	2200.7	2189.5	2205.2	2207.4
10°	2178.4	2178.4	2171.7	2189.5	2189.5
12.5°	2151.6	2151.6	2151.6	2169.4	2171.7
15°	2118.0	2120.3	2122.5	2144.9	2149.3
17.5°	2077.8	2082.3	2089.0	2115.8	2120.3
20°	2035.4	2039.8	2051.0	2082.3	2089.0
22.5°	1981.8	1992.9	2008.6	2044.3	2051.0
25°	1932.6	1941.5	1963.9	2001.9	2013.0
27.5°	1872.3	1885.7	1914.7	1954.9	1970.6
30°	1812.0	1825.4	1861.1	1908.0	1921.4
32.5°	1747.2	1767.3	1805.2	1854.4	1870.0
35°	1680.1	1698.0	1742.7	1800.8	1818.7
37.5°	1606.4	1631.0	1680.1	1742.7	1765.0
40°	1534.9	1561.7	1617.6	1684.6	1711.4
42.5°	1463.4	1490.2	1552.8	1628.7	1655.6
45°	1383.0	1412.0	1483.5	1564.0	1593.0
47.5°	1302.6	1338.3	1416.5	1501.4	1532.7
50°	1219.9	1260.1	1345.0	1434.4	1470.1
52.5°	1146.2	1184.1	1273.5	1369.6	1403.1
55°	1061.3	1103.7	1202.0	1300.3	1338.3
57.5°	974.1	1021.0	1126.0	1233.3	1271.3
60°	889.2	940.6	1056.8	1164.0	1206.5
62.5°	806.6	857.9	978.6	1090.3	1132.7
65°	717.2	777.5	902.6	1016.6	1056.8
67.5°	632.3	697.1	828.9	940.6	980.8
70°	549.6	612.2	752.9	862.4	902.6
72.5°	460.2	531.7	672.5	786.4	828.9
75°	370.9	455.8	594.3	706.0	746.2
77.5°	288.2	375.3	513.9	605.5	625.6
80°	212.3	301.6	422.3	487.1	511.6
82.5°	136.3	225.7	321.7	368.6	388.8
85°	76.0	149.7	210.0	236.8	245.8
87.5°	31.3	64.8	84.9	96.1	96.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)