

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: P314145

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-CA125-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: P314145  
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-CA125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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**

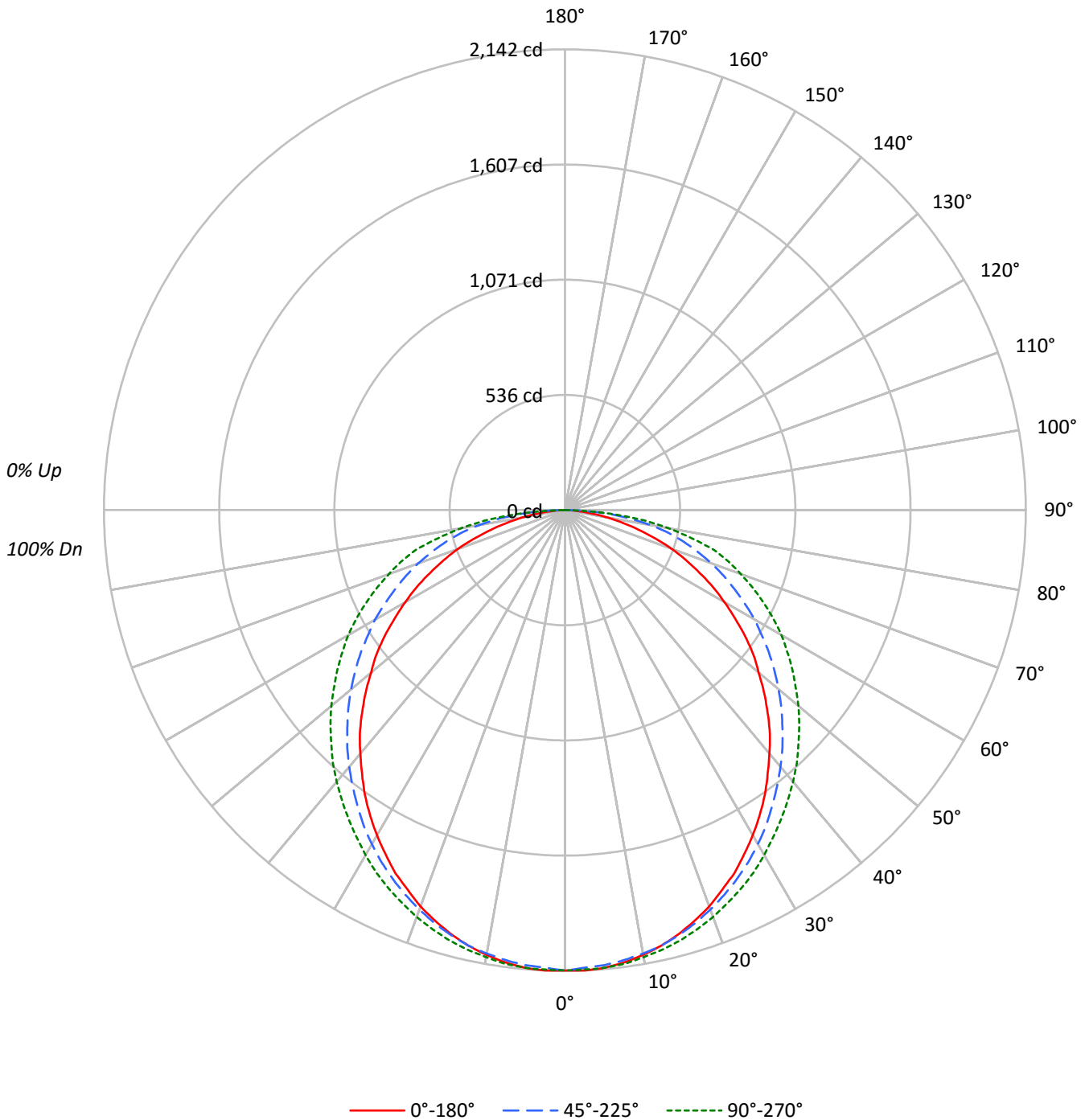
Lumens per Lamp: N/A  
Luminaire Lumens: 6490.0 lumens  
Efficiency: N/A  
Efficacy: 103.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 62.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2880	2880	2880
5°	2885	2868	2885
10°	2868	2860	2883
15°	2843	2849	2885
20°	2809	2830	2883
25°	2765	2810	2880
30°	2713	2787	2877
35°	2660	2759	2879
40°	2598	2738	2897
45°	2536	2721	2921
50°	2461	2713	2966
55°	2399	2718	3026
60°	2306	2741	3129
65°	2201	2769	3243
70°	2084	2855	3422
75°	1858	2978	3739
80°	1585	3154	3821
85°	1130	3125	3657



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.6	3.1
10°-20°	579.2	8.9
20°-30°	874.8	13.5
30°-40°	1054.4	16.2
40°-50°	1106.9	17.1
50°-60°	1035.5	16.0
60°-70°	855.2	13.2
70°-80°	582.7	9.0
80°-90°	198.7	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°	1656.6	25.5
0°-40°	2710.9	41.8
0°-60°	4853.3	74.8
0°-90°	6490.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6490.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2140	2140	2140	2140	2140	
5°	2136	2134	2123	2136	2136	203
15°	2041	2043	2046	2067	2071	575
25°	1863	1871	1893	1929	1940	857
35°	1619	1636	1680	1736	1753	1012
45°	1333	1361	1430	1507	1535	1028
55°	1023	1064	1158	1253	1290	913
65°	691	749	870	980	1018	686
75°	357	439	573	680	719	381
85°	73	144	202	228	237	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2140.3	2140.3	2140.3	2140.3	2140.3
2.5°	2142.5	2140.3	2129.6	2140.3	2138.2
5°	2136.0	2133.9	2123.1	2136.0	2136.0
7.5°	2121.0	2121.0	2110.2	2125.3	2127.4
10°	2099.4	2099.4	2093.0	2110.2	2110.2
12.5°	2073.6	2073.6	2073.6	2090.8	2093.0
15°	2041.3	2043.4	2045.6	2067.1	2071.4
17.5°	2002.5	2006.8	2013.3	2039.1	2043.4
20°	1961.6	1965.9	1976.7	2006.8	2013.3
22.5°	1909.9	1920.7	1935.8	1970.2	1976.7
25°	1862.6	1871.2	1892.7	1929.3	1940.1
27.5°	1804.4	1817.4	1845.3	1884.1	1899.2
30°	1746.3	1759.2	1793.7	1838.9	1851.8
32.5°	1683.9	1703.2	1739.8	1787.2	1802.3
35°	1619.3	1636.5	1679.5	1735.5	1752.8
37.5°	1548.2	1571.9	1619.3	1679.5	1701.1
40°	1479.3	1505.1	1559.0	1623.6	1649.4
42.5°	1410.4	1436.2	1496.5	1569.7	1595.6
45°	1332.9	1360.9	1429.8	1507.3	1535.3
47.5°	1255.4	1289.8	1365.2	1447.0	1477.1
50°	1175.7	1214.4	1296.3	1382.4	1416.8
52.5°	1104.6	1141.2	1227.4	1320.0	1352.3
55°	1022.8	1063.7	1158.5	1253.2	1289.8
57.5°	938.8	984.0	1085.2	1188.6	1225.2
60°	857.0	906.5	1018.5	1121.9	1162.8
62.5°	777.3	826.9	943.1	1050.8	1091.7
65°	691.2	749.3	869.9	979.7	1018.5
67.5°	609.4	671.8	798.9	906.5	945.3
70°	529.7	590.0	725.7	831.2	869.9
72.5°	443.6	512.5	648.1	757.9	798.9
75°	357.4	439.3	572.8	680.4	719.2
77.5°	277.8	361.7	495.3	583.5	602.9
80°	204.6	290.7	407.0	469.4	493.1
82.5°	131.3	217.5	310.1	355.3	374.7
85°	73.2	144.3	202.4	228.2	236.9
87.5°	30.1	62.4	81.8	92.6	92.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)