

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: P311815

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-S-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: P311815  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
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-S-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH 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**

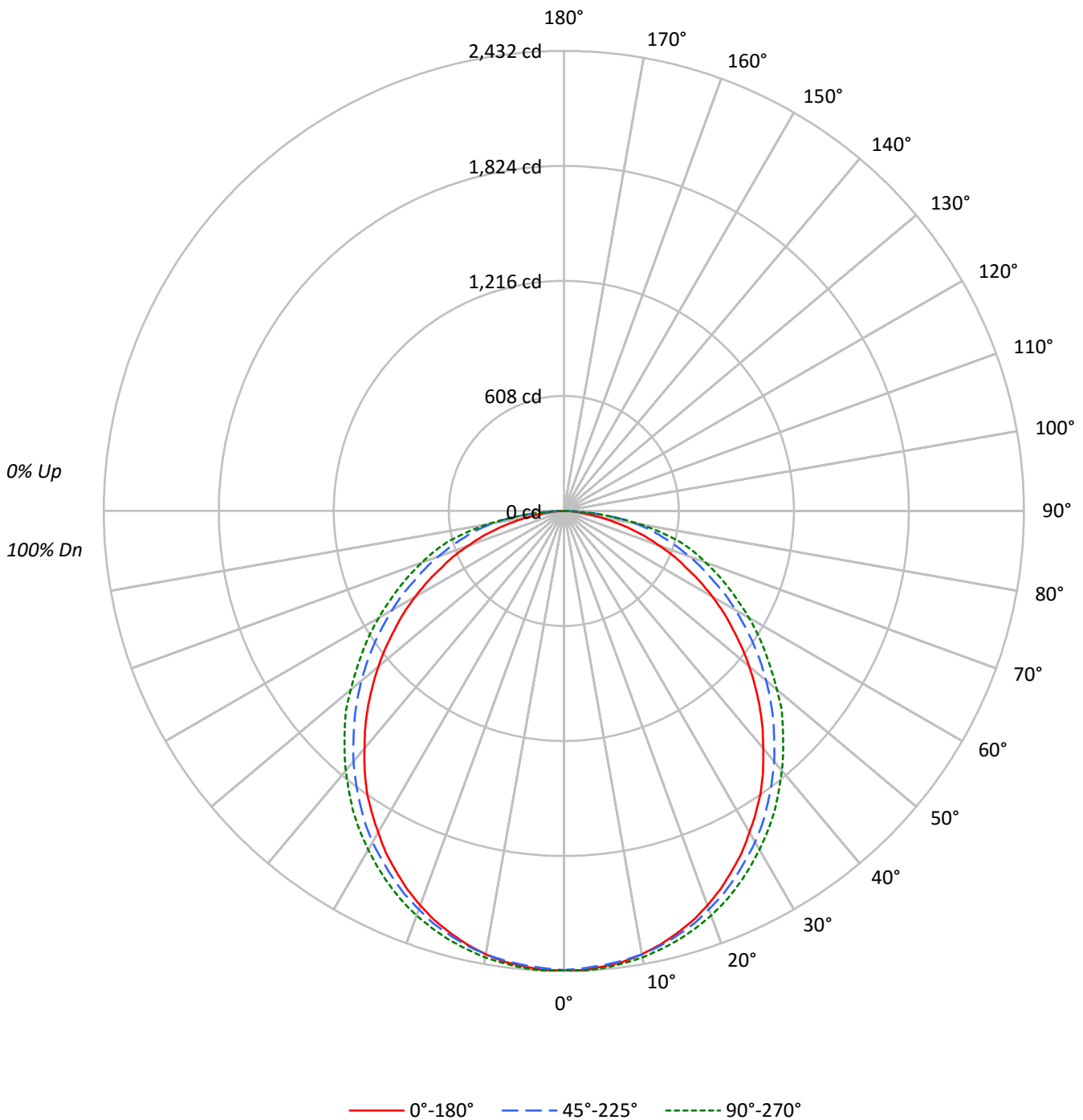
Lumens per Lamp: N/A  
Luminaire Lumens: 6910.0 lumens  
Efficiency: N/A  
Efficacy: 109.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 63.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3266	3266	3266
5°	3264	3255	3276
10°	3251	3251	3275
15°	3219	3235	3268
20°	3177	3209	3259
25°	3118	3177	3239
30°	3049	3141	3212
35°	2982	3090	3187
40°	2880	3038	3150
45°	2786	2978	3116
50°	2678	2922	3078
55°	2559	2868	3048
60°	2439	2823	3042
65°	2285	2774	3061
70°	2115	2789	3143
75°	1894	2841	3320
80°	1530	3010	3248
85°	1152	2643	2575



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	229.8	3.3
10°-20°	656.7	9.5
20°-30°	987.1	14.3
30°-40°	1175.8	17.0
40°-50°	1203.4	17.4
50°-60°	1083.4	15.7
60°-70°	850.8	12.3
70°-80°	552.2	8.0
80°-90°	170.8	2.5
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°	1873.6	27.1
0°-40°	3049.4	44.1
0°-60°	5336.2	77.2
0°-90°	6910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6910.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2428	2428	2428	2428	2428	
5°	2417	2421	2410	2423	2425	230
15°	2311	2318	2322	2342	2346	652
25°	2100	2118	2140	2175	2182	968
35°	1815	1837	1881	1927	1940	1132
45°	1464	1499	1565	1624	1637	1129
55°	1091	1139	1222	1286	1299	978
65°	718	773	871	944	961	714
75°	364	435	546	621	639	386
85°	75	138	171	167	167	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2427.5	2427.5	2427.5	2427.5	2427.5
2.5°	2429.7	2429.7	2418.7	2429.7	2431.9
5°	2416.6	2420.9	2410.0	2423.1	2425.3
7.5°	2403.4	2403.4	2396.8	2410.0	2412.2
10°	2379.2	2381.4	2379.2	2394.6	2396.8
12.5°	2348.5	2352.9	2355.1	2370.5	2372.7
15°	2311.2	2317.8	2322.2	2341.9	2346.3
17.5°	2269.5	2276.1	2287.1	2309.0	2313.4
20°	2219.0	2227.8	2241.0	2269.5	2276.1
22.5°	2164.1	2172.9	2194.9	2221.2	2232.2
25°	2100.5	2118.1	2140.0	2175.1	2181.7
27.5°	2036.8	2052.2	2080.7	2118.1	2126.8
30°	1962.2	1986.4	2021.5	2058.8	2067.6
32.5°	1889.8	1913.9	1955.6	1995.1	2006.1
35°	1815.2	1837.1	1881.0	1927.1	1940.3
37.5°	1729.6	1758.1	1806.4	1852.5	1865.6
40°	1639.6	1674.7	1729.6	1777.8	1793.2
42.5°	1554.0	1591.3	1646.2	1698.8	1716.4
45°	1464.0	1499.1	1564.9	1624.2	1637.4
47.5°	1371.8	1411.3	1481.5	1540.8	1562.7
50°	1279.6	1321.3	1395.9	1457.4	1470.6
52.5°	1187.4	1231.3	1310.3	1376.2	1382.8
55°	1090.9	1139.1	1222.5	1286.2	1299.4
57.5°	1003.1	1044.8	1134.7	1200.6	1216.0
60°	906.5	952.6	1049.1	1110.6	1130.4
62.5°	814.3	862.6	963.5	1025.0	1042.6
65°	717.7	772.6	871.4	943.8	961.4
67.5°	634.3	687.0	792.3	862.6	880.1
70°	537.7	597.0	708.9	781.4	798.9
72.5°	454.3	515.8	627.7	698.0	724.3
75°	364.3	434.6	546.5	621.1	638.7
77.5°	276.6	357.8	471.9	529.0	529.0
80°	197.5	283.1	388.5	414.8	419.2
82.5°	129.5	212.9	287.5	285.3	285.3
85°	74.6	138.3	171.2	166.8	166.8
87.5°	28.5	57.1	61.5	61.5	59.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)