

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: P314537

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-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: P314537  
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-L83050-S-CP250-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH 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**

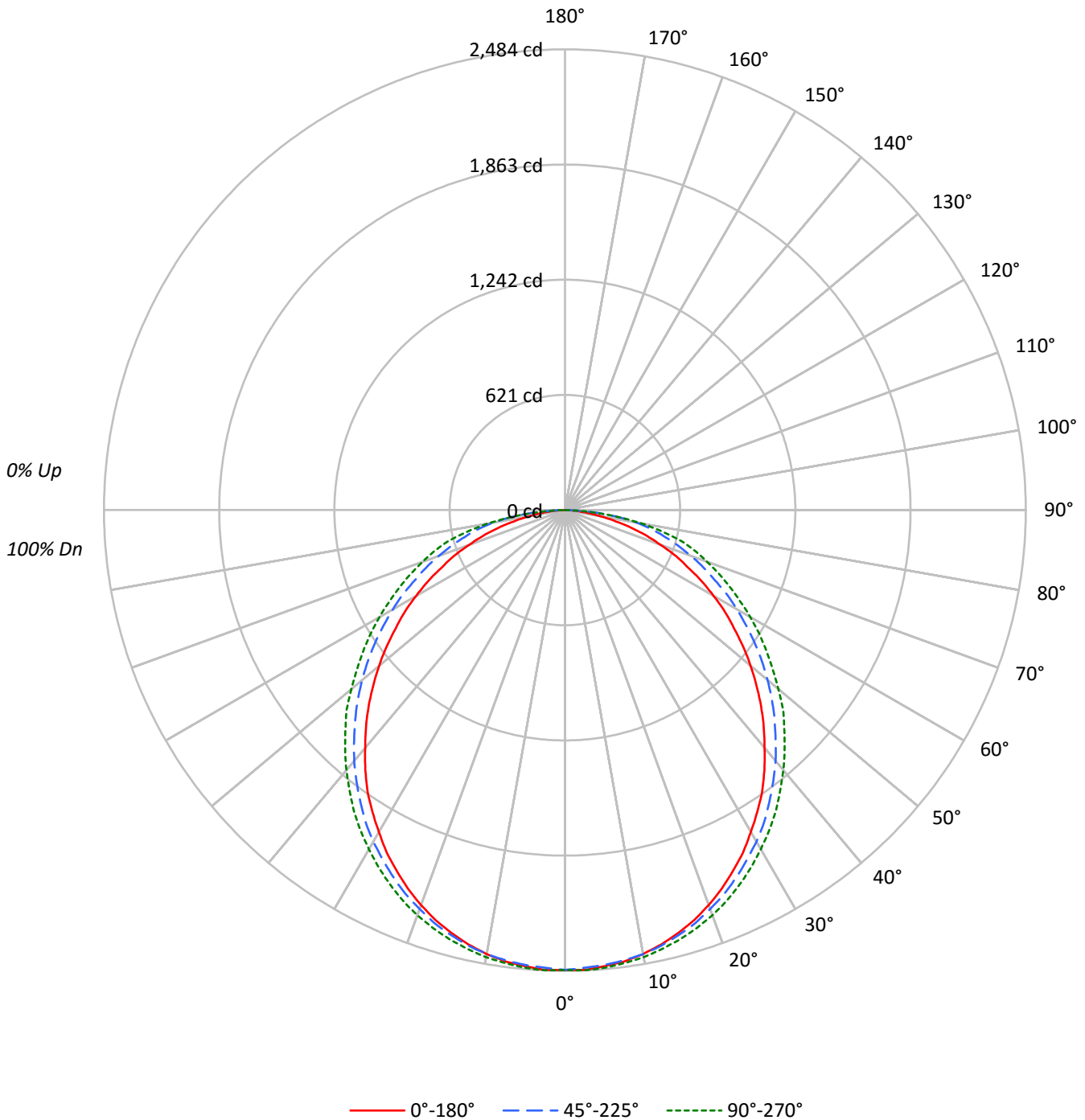
Lumens per Lamp: N/A  
Luminaire Lumens: 7057.0 lumens  
Efficiency: N/A  
Efficacy: 109.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3336	3336	3336
5°	3333	3324	3345
10°	3320	3320	3344
15°	3288	3304	3338
20°	3245	3277	3328
25°	3185	3245	3308
30°	3113	3207	3281
35°	3045	3155	3255
40°	2941	3103	3217
45°	2845	3041	3182
50°	2735	2984	3144
55°	2613	2929	3113
60°	2491	2883	3106
65°	2334	2833	3126
70°	2161	2848	3210
75°	1934	2901	3391
80°	1563	3075	3317
85°	1176	2699	2631



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.7	3.3
10°-20°	670.6	9.5
20°-30°	1008.1	14.3
30°-40°	1200.8	17.0
40°-50°	1229.0	17.4
50°-60°	1106.5	15.7
60°-70°	868.9	12.3
70°-80°	563.9	8.0
80°-90°	174.4	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°	1913.5	27.1
0°-40°	3114.3	44.1
0°-60°	5449.7	77.2
0°-90°	7057.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7057.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2479	2479	2479	2479	2479	
5°	2468	2472	2461	2475	2477	235
15°	2360	2367	2372	2392	2396	666
25°	2145	2163	2186	2221	2228	988
35°	1854	1876	1921	1968	1982	1156
45°	1495	1531	1598	1659	1672	1153
55°	1114	1163	1249	1314	1327	999
65°	733	789	890	964	982	730
75°	372	444	558	634	652	394
85°	76	141	175	170	170	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2479.2	2479.2	2479.2	2479.2	2479.2
2.5°	2481.4	2481.4	2470.2	2481.4	2483.7
5°	2468.0	2472.4	2461.2	2474.7	2476.9
7.5°	2454.5	2454.5	2447.8	2461.2	2463.5
10°	2429.9	2432.1	2429.9	2445.5	2447.8
12.5°	2398.5	2403.0	2405.2	2420.9	2423.1
15°	2360.4	2367.1	2371.6	2391.7	2396.2
17.5°	2317.8	2324.5	2335.7	2358.1	2362.6
20°	2266.2	2275.2	2288.6	2317.8	2324.5
22.5°	2210.2	2219.1	2241.6	2268.5	2279.7
25°	2145.2	2163.1	2185.5	2221.4	2228.1
27.5°	2080.2	2095.9	2125.0	2163.1	2172.1
30°	2004.0	2028.6	2064.5	2102.6	2111.6
32.5°	1930.0	1954.6	1997.2	2037.6	2048.8
35°	1853.8	1876.2	1921.0	1968.1	1981.5
37.5°	1766.4	1795.5	1844.8	1891.9	1905.3
40°	1674.4	1710.3	1766.4	1815.7	1831.4
42.5°	1587.0	1625.1	1681.2	1735.0	1752.9
45°	1495.1	1531.0	1598.2	1658.8	1672.2
47.5°	1401.0	1441.3	1513.1	1573.6	1596.0
50°	1306.8	1349.4	1425.6	1488.4	1501.8
52.5°	1212.7	1257.5	1338.2	1405.5	1412.2
55°	1114.1	1163.4	1248.6	1313.6	1327.0
57.5°	1024.4	1067.0	1158.9	1226.1	1241.8
60°	925.8	972.8	1071.5	1134.2	1154.4
62.5°	831.6	880.9	984.0	1046.8	1064.7
65°	733.0	789.0	889.9	963.9	981.8
67.5°	647.8	701.6	809.2	880.9	898.9
70°	549.2	609.7	724.0	798.0	815.9
72.5°	464.0	526.8	641.1	712.8	739.7
75°	372.1	443.8	558.1	634.4	652.3
77.5°	282.4	365.4	481.9	540.2	540.2
80°	201.7	289.2	396.8	423.7	428.1
82.5°	132.3	217.4	293.6	291.4	291.4
85°	76.2	141.2	174.8	170.4	170.4
87.5°	29.1	58.3	62.8	62.8	60.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)