

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: P312927

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-S-CP125-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: P312927  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-24HE-UNV-L83050-S-CP125-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 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**

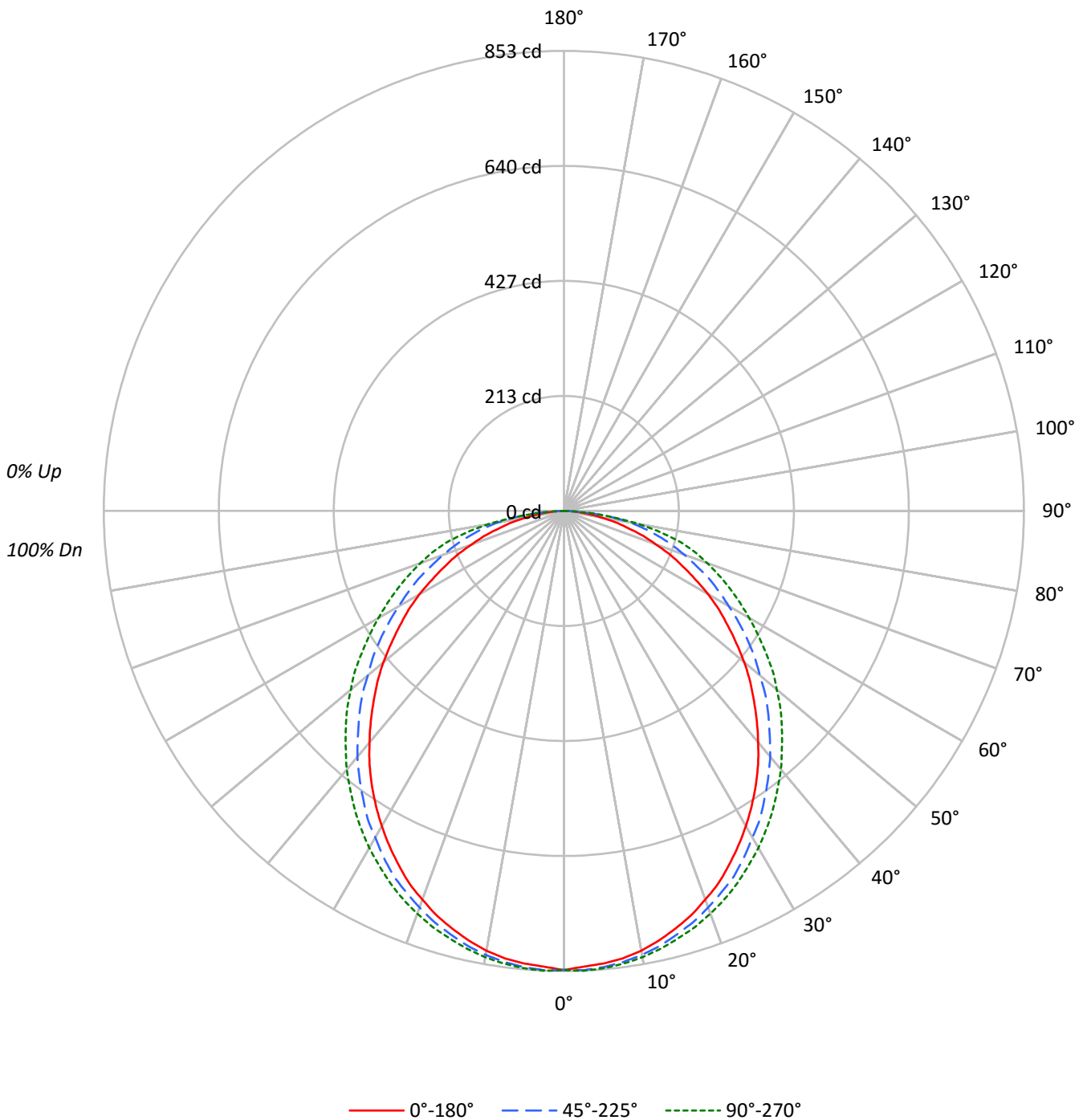
Lumens per Lamp: N/A  
Luminaire Lumens: 2375.0 lumens  
Efficiency: N/A  
Efficacy: 123.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2290	2290	2290
5°	2275	2293	2299
10°	2262	2283	2295
15°	2232	2263	2284
20°	2196	2240	2275
25°	2152	2218	2260
30°	2097	2173	2242
35°	2038	2133	2221
40°	1970	2090	2199
45°	1898	2041	2176
50°	1828	1986	2157
55°	1742	1949	2142
60°	1664	1903	2135
65°	1552	1891	2159
70°	1430	1874	2223
75°	1290	1901	2338
80°	1116	1957	2197
85°	923	1643	1643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.5	3.4
10°-20°	229.0	9.6
20°-30°	342.7	14.4
30°-40°	405.8	17.1
40°-50°	413.6	17.4
50°-60°	370.7	15.6
60°-70°	290.2	12.2
70°-80°	187.1	7.9
80°-90°	55.3	2.3
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°	652.2	27.5
0°-40°	1058.0	44.5
0°-60°	1842.3	77.6
0°-90°	2375.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2375.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	851	851	851	851	851	
5°	842	844	849	850	851	80
15°	801	806	812	819	820	226
25°	725	731	747	757	761	334
35°	620	628	649	669	676	388
45°	499	510	536	564	572	385
55°	371	383	416	444	456	333
65°	244	258	297	326	339	242
75°	124	143	183	214	225	133
85°	30	41	53	53	53	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	851.0	851.0	851.0	851.0	851.0
2.5°	845.5	847.7	852.1	853.3	853.3
5°	842.2	844.4	848.8	849.9	851.0
7.5°	836.6	837.7	843.3	845.5	846.6
10°	827.8	830.0	835.5	838.8	840.0
12.5°	815.6	818.9	825.5	830.0	831.1
15°	801.2	805.6	812.3	818.9	820.0
17.5°	785.7	790.1	799.0	806.7	808.9
20°	766.8	772.4	782.3	791.2	794.5
22.5°	748.0	752.4	764.6	775.7	779.0
25°	724.7	731.4	746.9	756.8	761.3
27.5°	700.3	708.1	723.6	736.9	741.3
30°	674.8	682.6	699.2	715.8	721.4
32.5°	648.3	657.1	677.1	693.7	699.2
35°	620.5	628.3	649.4	669.3	676.0
37.5°	591.7	598.4	622.8	643.8	650.5
40°	560.7	569.6	595.1	619.4	626.1
42.5°	529.7	539.7	565.1	591.7	598.4
45°	498.7	509.7	536.3	564.0	571.8
47.5°	468.7	477.6	507.5	534.1	545.2
50°	436.6	445.5	474.3	504.2	515.3
52.5°	403.4	415.5	446.6	475.4	488.7
55°	371.2	383.4	415.5	444.4	456.5
57.5°	341.3	351.3	384.5	414.4	426.6
60°	309.2	318.0	353.5	385.6	396.7
62.5°	274.8	288.1	324.7	354.6	367.9
65°	243.8	258.2	297.0	325.8	339.1
67.5°	215.0	228.3	265.9	297.0	311.4
70°	181.7	199.5	238.2	269.3	282.6
72.5°	155.1	170.7	210.5	241.6	256.0
75°	124.1	142.9	182.8	213.9	224.9
77.5°	98.6	117.5	155.1	179.5	185.1
80°	72.0	90.9	126.3	138.5	141.8
82.5°	48.8	66.5	90.9	94.2	95.3
85°	29.9	41.0	53.2	53.2	53.2
87.5°	14.4	16.6	18.8	17.7	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)