

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: P308923

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-CA08-W2A-U-6500K**

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: P308923  
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-L82765-S-CA08-W2A-U-6500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 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**

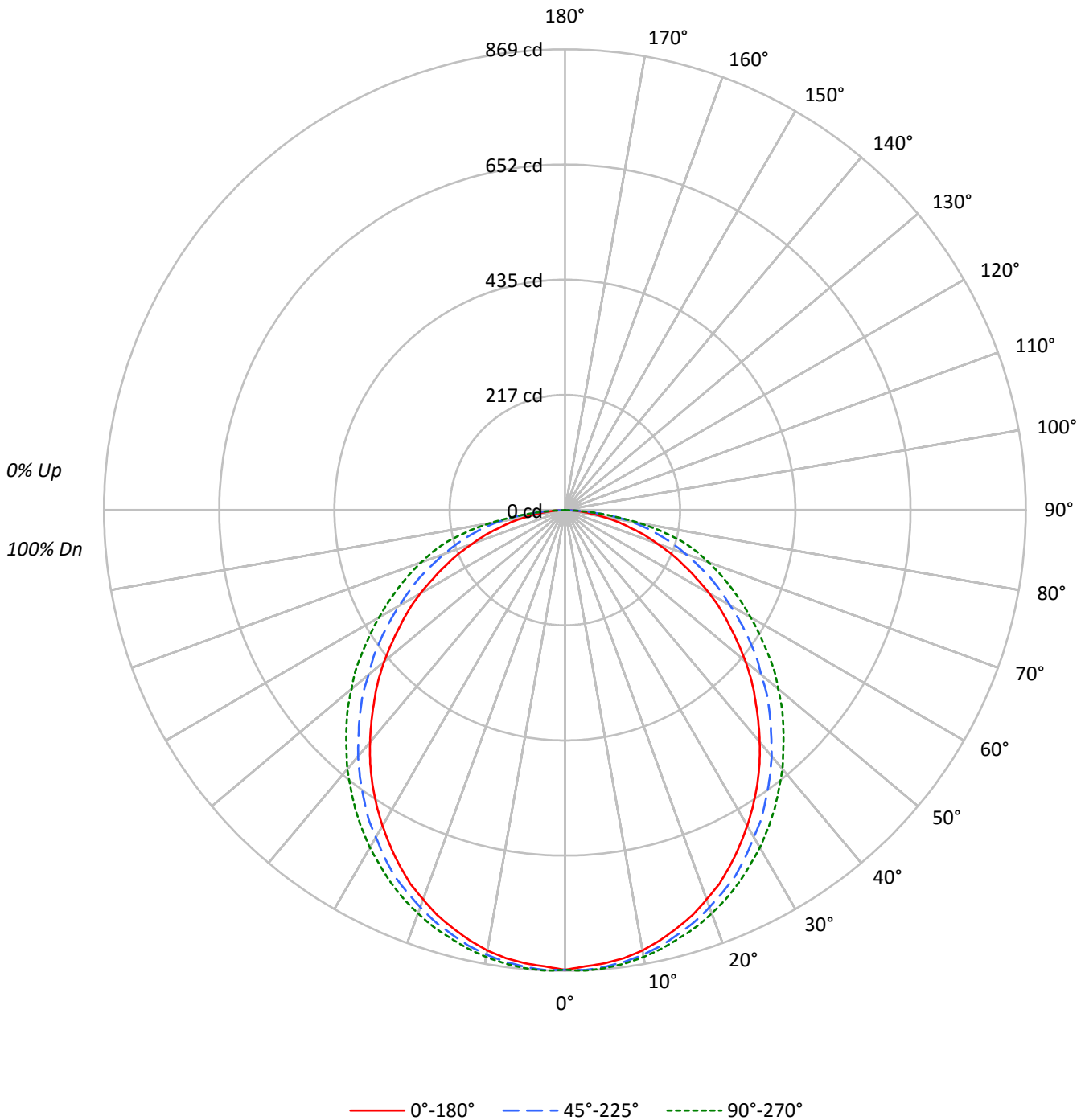
Lumens per Lamp: N/A  
Luminaire Lumens: 2420.0 lumens  
Efficiency: N/A  
Efficacy: 122.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2334	2334	2334
5°	2318	2336	2343
10°	2305	2326	2339
15°	2274	2306	2328
20°	2237	2283	2318
25°	2192	2260	2303
30°	2137	2214	2284
35°	2077	2174	2263
40°	2007	2130	2241
45°	1934	2080	2217
50°	1863	2023	2198
55°	1775	1986	2183
60°	1695	1939	2175
65°	1582	1927	2200
70°	1457	1910	2265
75°	1315	1937	2383
80°	1137	1994	2239
85°	942	1673	1673



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.0	3.4
10°-20°	233.4	9.6
20°-30°	349.2	14.4
30°-40°	413.5	17.1
40°-50°	421.4	17.4
50°-60°	377.7	15.6
60°-70°	295.7	12.2
70°-80°	190.7	7.9
80°-90°	56.3	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°	664.6	27.5
0°-40°	1078.1	44.5
0°-60°	1877.2	77.6
0°-90°	2420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2420.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	867	867	867	867	867	
5°	858	860	865	866	867	81
15°	816	821	828	834	836	230
25°	738	745	761	771	776	340
35°	632	640	662	682	689	395
45°	508	519	546	575	583	392
55°	378	391	423	453	465	339
65°	248	263	303	332	346	247
75°	126	146	186	218	229	136
85°	30	42	54	54	54	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	867.2	867.2	867.2	867.2	867.2
2.5°	861.5	863.8	868.3	869.4	869.4
5°	858.1	860.4	864.9	866.0	867.2
7.5°	852.5	853.6	859.3	861.5	862.6
10°	843.4	845.7	851.4	854.7	855.9
12.5°	831.0	834.4	841.2	845.7	846.8
15°	816.4	820.9	827.6	834.4	835.5
17.5°	800.5	805.1	814.1	822.0	824.3
20°	781.3	787.0	797.2	806.2	809.6
22.5°	762.2	766.7	779.1	790.4	793.8
25°	738.4	745.2	761.0	771.2	775.7
27.5°	713.6	721.5	737.3	750.9	755.4
30°	687.6	695.5	712.5	729.4	735.1
32.5°	660.5	669.6	689.9	706.8	712.5
35°	632.3	640.2	661.7	682.0	688.8
37.5°	602.9	609.7	634.6	656.0	662.8
40°	571.3	580.4	606.3	631.2	638.0
42.5°	539.7	549.9	575.8	602.9	609.7
45°	508.1	519.4	546.5	574.7	582.6
47.5°	477.6	486.6	517.1	544.2	555.5
50°	444.9	453.9	483.3	513.7	525.0
52.5°	411.0	423.4	455.0	484.4	497.9
55°	378.3	390.7	423.4	452.8	465.2
57.5°	347.8	357.9	391.8	422.3	434.7
60°	315.0	324.1	360.2	392.9	404.2
62.5°	280.0	293.6	330.8	361.3	374.9
65°	248.4	263.1	302.6	332.0	345.5
67.5°	219.0	232.6	271.0	302.6	317.3
70°	185.2	203.2	242.8	274.4	287.9
72.5°	158.1	173.9	214.5	246.1	260.8
75°	126.5	145.7	186.3	217.9	229.2
77.5°	100.5	119.7	158.1	182.9	188.6
80°	73.4	92.6	128.7	141.1	144.5
82.5°	49.7	67.7	92.6	96.0	97.1
85°	30.5	41.8	54.2	54.2	54.2
87.5°	14.7	16.9	19.2	18.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)