

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: P308956

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-CP250-W2A-U-5000K**

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: P308956  
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-CP250-W2A-U-5000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.250" POLYCARB 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**

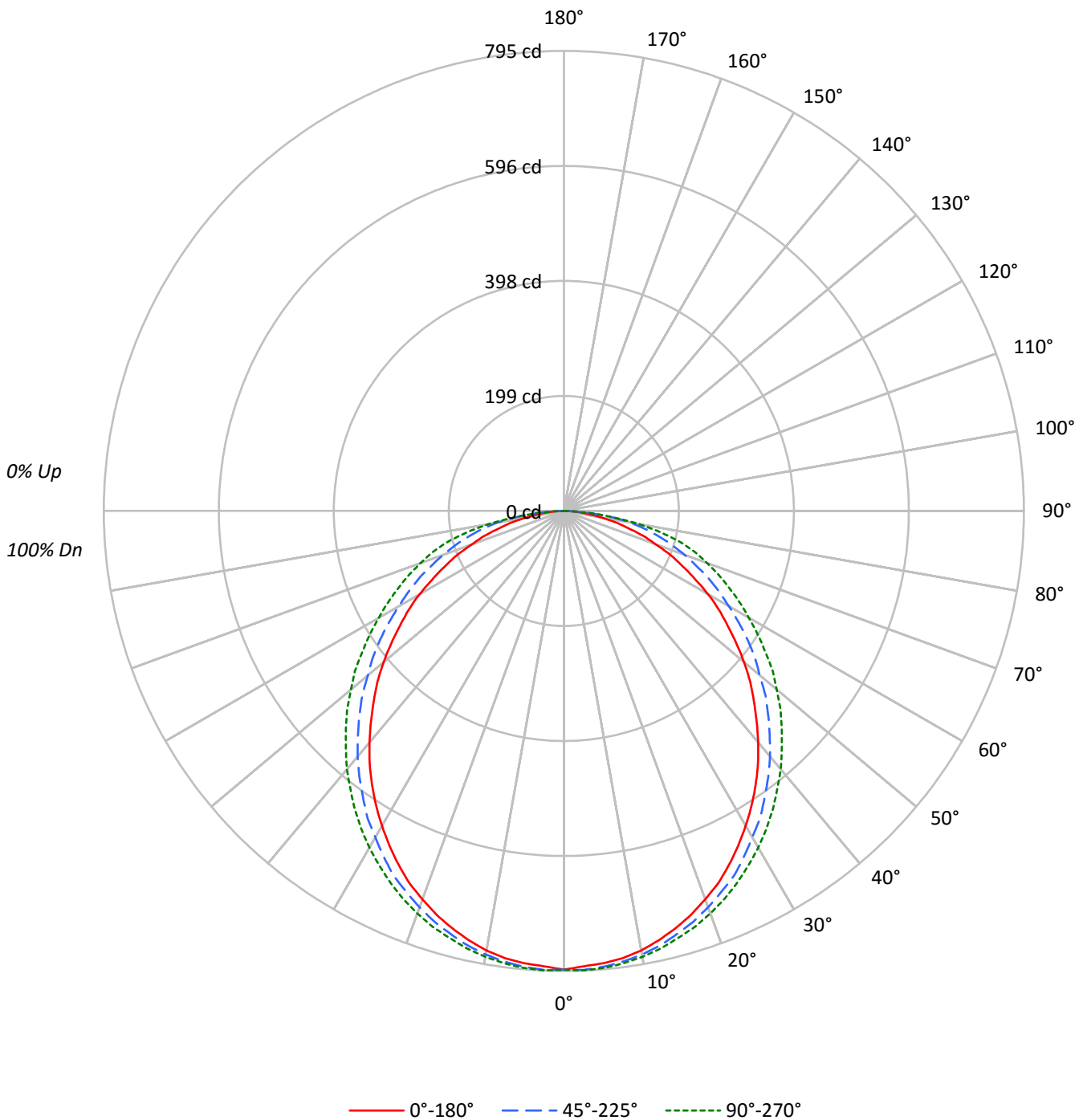
Lumens per Lamp: N/A  
Luminaire Lumens: 2212.0 lumens  
Efficiency: N/A  
Efficacy: 114.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2133	2133	2133
5°	2119	2136	2141
10°	2107	2126	2138
15°	2079	2108	2128
20°	2045	2086	2119
25°	2004	2065	2105
30°	1953	2023	2088
35°	1899	1987	2068
40°	1834	1947	2048
45°	1767	1901	2026
50°	1702	1849	2009
55°	1622	1816	1995
60°	1549	1772	1989
65°	1446	1761	2011
70°	1332	1746	2071
75°	1202	1771	2178
80°	1040	1824	2047
85°	861	1528	1528



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.0	3.4
10°-20°	213.3	9.6
20°-30°	319.2	14.4
30°-40°	378.0	17.1
40°-50°	385.2	17.4
50°-60°	345.3	15.6
60°-70°	270.3	12.2
70°-80°	174.3	7.9
80°-90°	51.5	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°	607.4	27.5
0°-40°	985.4	44.5
0°-60°	1715.9	77.6
0°-90°	2212.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2212.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	793	793	793	793	793	
5°	784	786	791	792	793	74
15°	746	750	756	763	764	210
25°	675	681	696	705	709	311
35°	578	585	605	623	630	361
45°	464	475	500	525	532	359
55°	346	357	387	414	425	310
65°	227	240	277	303	316	226
75°	116	133	170	199	210	124
85°	28	38	50	50	50	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	792.6	792.6	792.6	792.6	792.6
2.5°	787.5	789.5	793.7	794.7	794.7
5°	784.4	786.4	790.6	791.6	792.6
7.5°	779.2	780.2	785.4	787.5	788.5
10°	771.0	773.0	778.2	781.3	782.3
12.5°	759.6	762.7	768.9	773.0	774.1
15°	746.2	750.3	756.5	762.7	763.7
17.5°	731.7	735.9	744.1	751.3	753.4
20°	714.2	719.4	728.6	736.9	740.0
22.5°	696.6	700.8	712.1	722.4	725.5
25°	675.0	681.2	695.6	704.9	709.0
27.5°	652.3	659.5	673.9	686.3	690.5
30°	628.5	635.8	651.2	666.7	671.9
32.5°	603.8	612.0	630.6	646.1	651.2
35°	578.0	585.2	604.8	623.4	629.6
37.5°	551.1	557.3	580.0	599.6	605.8
40°	522.2	530.5	554.2	576.9	583.1
42.5°	493.3	502.6	526.4	551.1	557.3
45°	464.4	474.8	499.5	525.3	532.5
47.5°	436.6	444.8	472.7	497.5	507.8
50°	406.6	414.9	441.7	469.6	479.9
52.5°	375.7	387.0	415.9	442.8	455.1
55°	345.7	357.1	387.0	413.9	425.2
57.5°	317.9	327.2	358.1	386.0	397.3
60°	287.9	296.2	329.2	359.2	369.5
62.5°	256.0	268.3	302.4	330.3	342.6
65°	227.1	240.5	276.6	303.4	315.8
67.5°	200.2	212.6	247.7	276.6	290.0
70°	169.3	185.8	221.9	250.8	263.2
72.5°	144.5	158.9	196.1	225.0	238.4
75°	115.6	133.1	170.3	199.2	209.5
77.5°	91.9	109.4	144.5	167.2	172.4
80°	67.1	84.6	117.7	129.0	132.1
82.5°	45.4	61.9	84.6	87.7	88.8
85°	27.9	38.2	49.5	49.5	49.5
87.5°	13.4	15.5	17.5	16.5	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)