

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: P308996

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-2700K**

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: P308996  
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: 22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-2700K  
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**

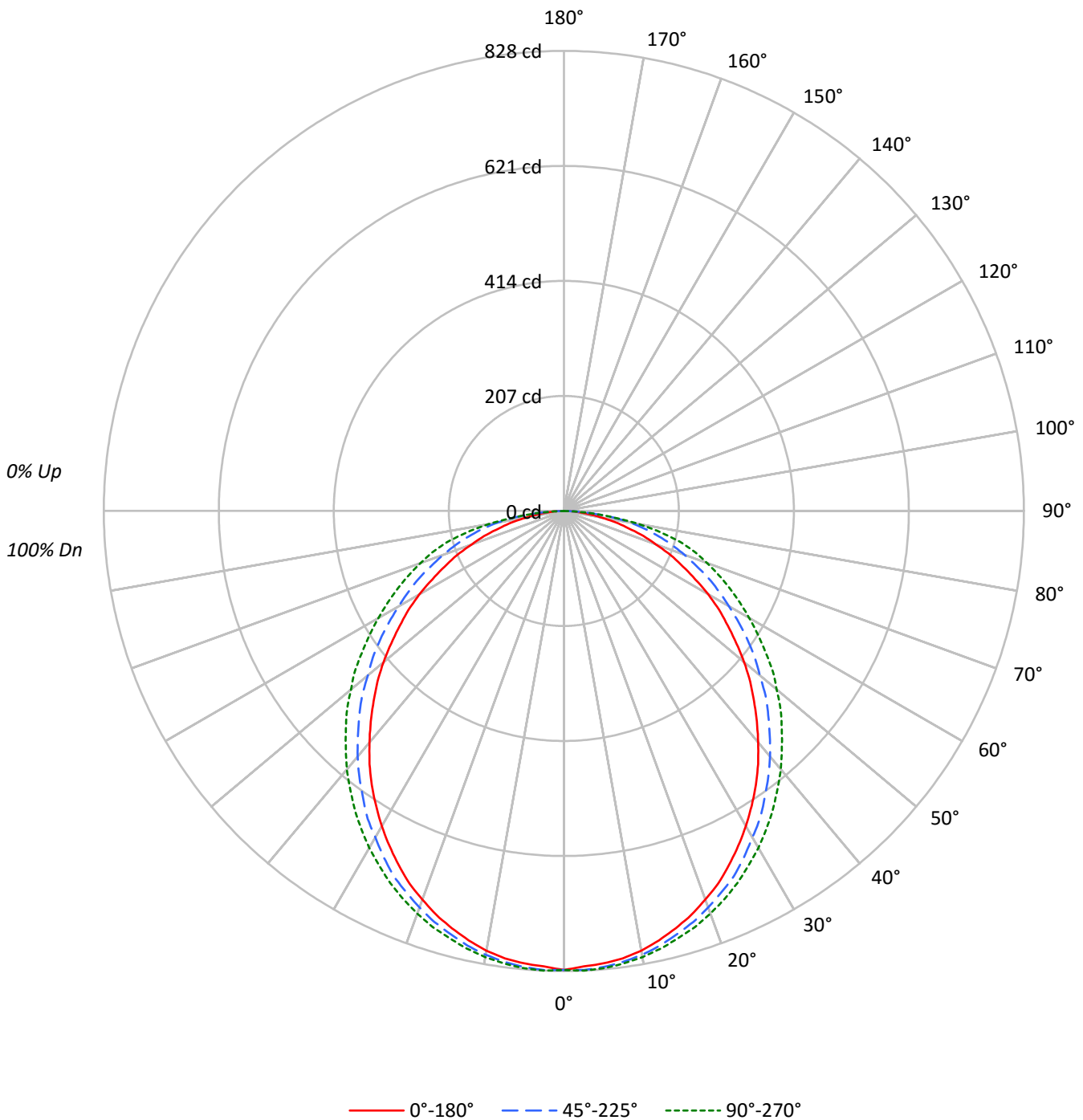
Lumens per Lamp: N/A  
Luminaire Lumens: 2305.0 lumens  
Efficiency: N/A  
Efficacy: 102.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2223	2223	2223
5°	2208	2225	2231
10°	2195	2216	2228
15°	2166	2196	2217
20°	2131	2174	2208
25°	2089	2152	2194
30°	2035	2109	2175
35°	1979	2070	2155
40°	1912	2029	2134
45°	1842	1981	2112
50°	1774	1927	2094
55°	1690	1892	2079
60°	1615	1847	2072
65°	1507	1835	2096
70°	1388	1819	2157
75°	1253	1845	2270
80°	1083	1900	2134
85°	895	1593	1593



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	3.4
10°-20°	222.3	9.6
20°-30°	332.6	14.4
30°-40°	393.9	17.1
40°-50°	401.4	17.4
50°-60°	359.8	15.6
60°-70°	281.7	12.2
70°-80°	181.6	7.9
80°-90°	53.6	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°	633.0	27.5
0°-40°	1026.9	44.5
0°-60°	1788.0	77.6
0°-90°	2305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2305.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	826	826	826	826	826	
5°	817	820	824	825	826	78
15°	778	782	788	795	796	219
25°	703	710	725	734	739	324
35°	602	610	630	650	656	376
45°	484	495	520	547	555	374
55°	360	372	403	431	443	323
65°	237	251	288	316	329	235
75°	120	139	178	208	218	129
85°	29	40	52	52	52	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	826.0	826.0	826.0	826.0	826.0
2.5°	820.6	822.7	827.0	828.1	828.1
5°	817.3	819.5	823.8	824.9	826.0
7.5°	812.0	813.0	818.4	820.6	821.7
10°	803.4	805.5	810.9	814.1	815.2
12.5°	791.5	794.8	801.2	805.5	806.6
15°	777.6	781.9	788.3	794.8	795.8
17.5°	762.5	766.8	775.4	782.9	785.1
20°	744.2	749.6	759.3	767.9	771.1
22.5°	725.9	730.2	742.1	752.8	756.0
25°	703.4	709.8	724.9	734.5	738.8
27.5°	679.7	687.2	702.3	715.2	719.5
30°	655.0	662.5	678.6	694.7	700.1
32.5°	629.1	637.7	657.1	673.2	678.6
35°	602.3	609.8	630.2	649.6	656.0
37.5°	574.3	580.7	604.4	624.8	631.3
40°	544.2	552.8	577.5	601.2	607.6
42.5°	514.1	523.7	548.5	574.3	580.7
45°	484.0	494.7	520.5	547.4	554.9
47.5°	454.9	463.5	492.6	518.4	529.1
50°	423.7	432.3	460.3	489.3	500.1
52.5°	391.5	403.3	433.4	461.4	474.3
55°	360.3	372.1	403.3	431.3	443.1
57.5°	331.2	340.9	373.2	402.2	414.1
60°	300.1	308.7	343.1	374.3	385.0
62.5°	266.7	279.6	315.1	344.1	357.1
65°	236.6	250.6	288.2	316.2	329.1
67.5°	208.6	221.5	258.1	288.2	302.2
70°	176.4	193.6	231.2	261.3	274.2
72.5°	150.6	165.6	204.3	234.5	248.4
75°	120.5	138.7	177.5	207.6	218.3
77.5°	95.7	114.0	150.6	174.2	179.6
80°	69.9	88.2	122.6	134.4	137.7
82.5°	47.3	64.5	88.2	91.4	92.5
85°	29.0	39.8	51.6	51.6	51.6
87.5°	14.0	16.1	18.3	17.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)