

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: P308727

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CP250-W2A-U-3000K**

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: P308727  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
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-CP250-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

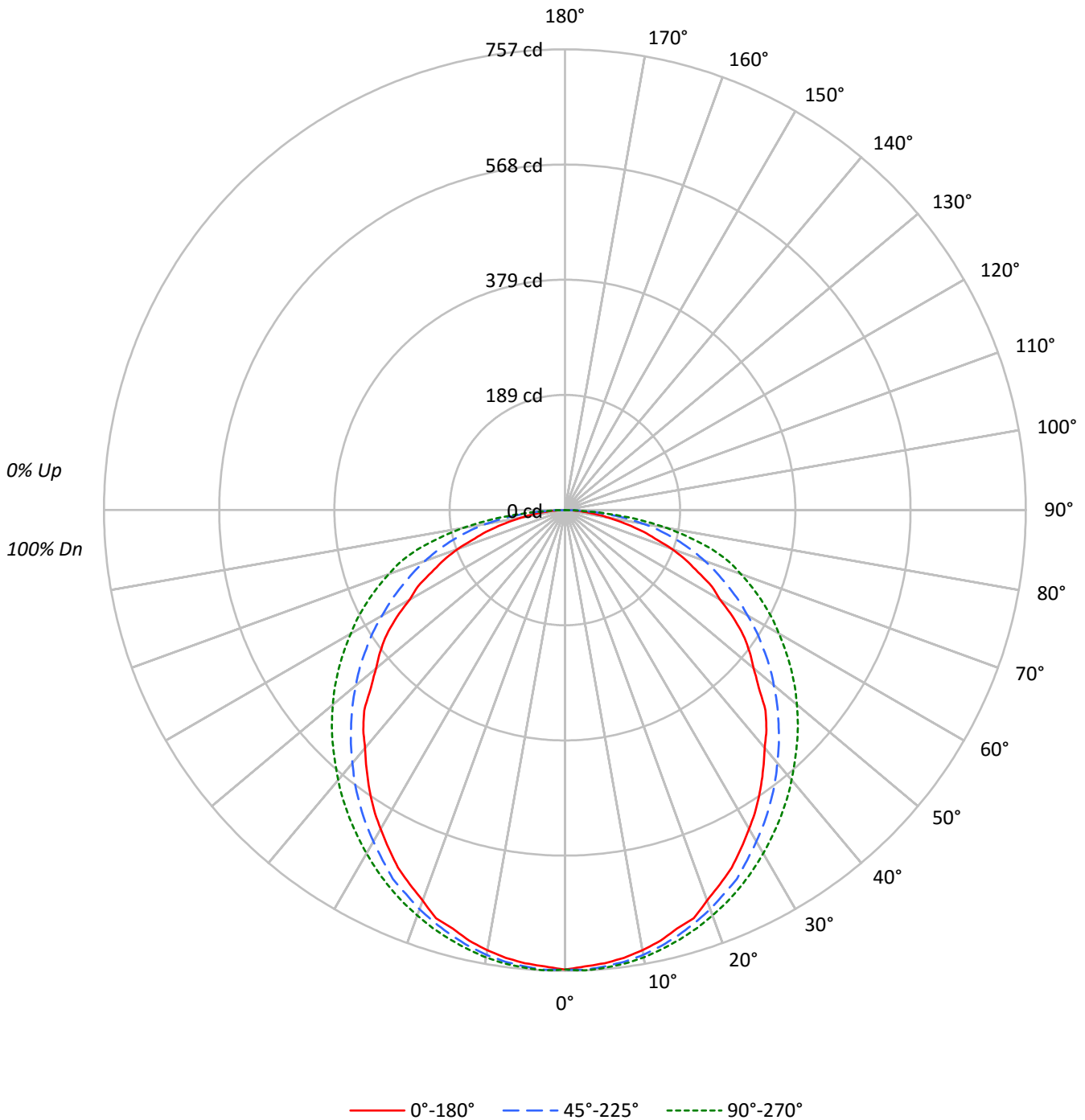
Lumens per Lamp: N/A  
Luminaire Lumens: 2250.0 lumens  
Efficiency: N/A  
Efficacy: 101.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	2031	2031	2031
5°	2019	2033	2039
10°	2007	2028	2039
15°	1983	2013	2034
20°	1955	1998	2029
25°	1925	1985	2027
30°	1881	1954	2024
35°	1840	1932	2027
40°	1793	1906	2035
45°	1775	1889	2053
50°	1695	1876	2083
55°	1677	1869	2127
60°	1582	1866	2185
65°	1536	1879	2283
70°	1474	1924	2423
75°	1343	1982	2609
80°	1151	2053	2636
85°	932	1961	2260



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.4	3.2
10°-20°	203.8	9.1
20°-30°	306.7	13.6
30°-40°	368.1	16.4
40°-50°	384.7	17.1
50°-60°	358.5	15.9
60°-70°	294.1	13.1
70°-80°	198.1	8.8
80°-90°	64.5	2.9
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°	581.9	25.9
0°-40°	950.0	42.2
0°-60°	1693.2	75.3
0°-90°	2250.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2250.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	755	755	755	755	755	
5°	747	750	753	754	755	71
15°	712	716	723	729	730	201
25°	648	653	669	678	683	298
35°	560	568	588	608	617	350
45°	466	470	496	527	540	356
55°	358	364	398	436	453	317
65°	241	252	295	338	359	240
75°	129	143	191	234	251	136
85°	30	43	64	74	73	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	754.9	754.9	754.9	754.9	754.9
2.5°	750.6	752.7	756.0	757.0	757.0
5°	747.4	749.5	752.7	753.8	754.9
7.5°	742.0	744.1	748.4	750.6	751.7
10°	734.4	736.6	742.0	745.2	746.3
12.5°	724.7	726.9	733.4	737.7	738.7
15°	711.8	716.1	722.6	729.0	730.1
17.5°	703.2	702.1	710.7	718.3	720.4
20°	682.7	688.1	697.8	706.4	708.6
22.5°	665.5	669.8	682.7	692.4	696.7
25°	648.3	652.6	668.7	678.4	682.7
27.5°	626.7	633.2	648.3	662.3	667.7
30°	605.2	611.7	628.9	645.1	651.5
32.5°	583.7	591.2	609.5	626.7	634.3
35°	560.0	567.5	588.0	608.4	617.1
37.5°	535.2	544.9	566.4	589.1	598.7
40°	510.4	520.1	542.7	568.6	579.4
42.5°	490.0	494.3	520.1	548.1	558.9
45°	466.3	469.5	496.4	526.6	539.5
47.5°	431.8	443.7	472.8	506.1	519.1
50°	404.9	417.8	448.0	483.5	497.5
52.5°	382.3	390.9	424.3	459.8	476.0
55°	357.5	364.0	398.4	436.1	453.4
57.5°	327.4	339.2	373.7	412.4	429.7
60°	294.0	309.1	346.8	388.8	406.0
62.5°	272.5	281.1	322.0	364.0	383.4
65°	241.2	252.0	295.1	338.1	358.6
67.5°	215.4	226.1	270.3	313.4	333.8
70°	187.4	198.1	244.5	287.5	308.0
72.5°	155.1	170.1	218.6	261.7	283.2
75°	129.2	143.2	190.6	233.7	250.9
77.5°	100.2	118.5	162.6	198.1	211.1
80°	74.3	92.6	132.5	158.3	170.1
82.5°	50.6	68.9	99.1	118.5	124.9
85°	30.2	43.1	63.5	74.3	73.2
87.5°	14.0	18.3	25.8	25.8	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)