

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: P308726

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-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: P308726  
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-2700K  
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**

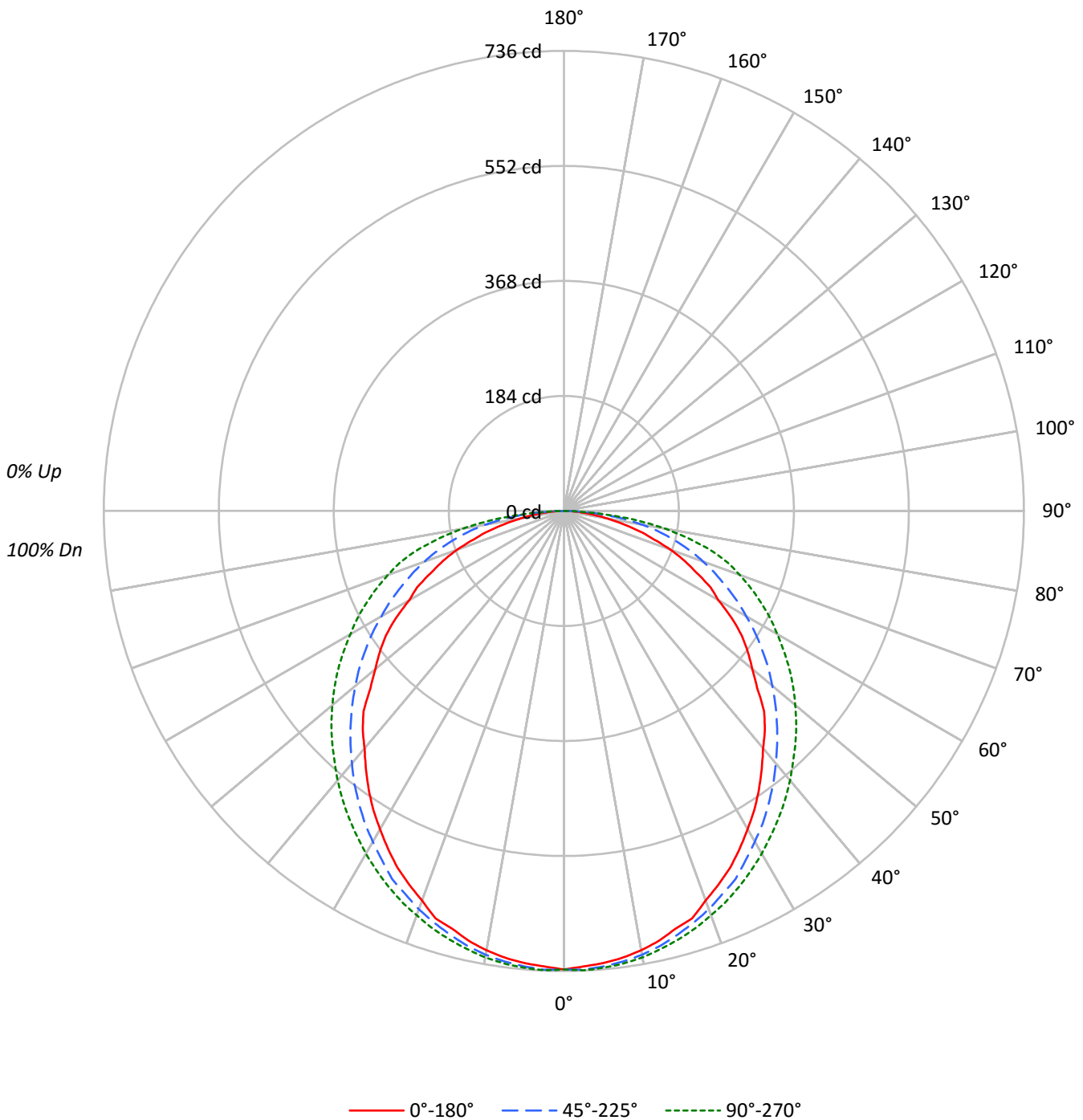
Lumens per Lamp: N/A  
Luminaire Lumens: 2186.0 lumens  
Efficiency: N/A  
Efficacy: 97.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1974	1974	1974
5°	1961	1975	1981
10°	1950	1970	1981
15°	1927	1956	1976
20°	1899	1942	1971
25°	1870	1929	1969
30°	1827	1899	1967
35°	1787	1877	1969
40°	1742	1852	1977
45°	1724	1835	1995
50°	1647	1822	2024
55°	1630	1816	2067
60°	1537	1813	2123
65°	1493	1826	2218
70°	1432	1869	2354
75°	1306	1926	2535
80°	1119	1994	2562
85°	905	1905	2195



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	3.2
10°-20°	198.0	9.1
20°-30°	298.0	13.6
30°-40°	357.6	16.4
40°-50°	373.8	17.1
50°-60°	348.3	15.9
60°-70°	285.7	13.1
70°-80°	192.5	8.8
80°-90°	62.7	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°	565.3	25.9
0°-40°	923.0	42.2
0°-60°	1645.1	75.3
0°-90°	2186.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2186.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	726	728	731	732	733	69
15°	692	696	702	708	709	195
25°	630	634	650	659	663	290
35°	544	551	571	591	600	340
45°	453	456	482	512	524	346
55°	347	354	387	424	440	308
65°	234	245	287	328	348	233
75°	126	139	185	227	244	132
85°	29	42	62	72	71	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	733.4	733.4	733.4	733.4	733.4
2.5°	729.2	731.3	734.5	735.5	735.5
5°	726.1	728.2	731.3	732.4	733.4
7.5°	720.9	723.0	727.1	729.2	730.3
10°	713.5	715.6	720.9	724.0	725.1
12.5°	704.1	706.2	712.5	716.7	717.7
15°	691.6	695.8	702.0	708.3	709.4
17.5°	683.2	682.2	690.5	697.8	699.9
20°	663.3	668.6	678.0	686.3	688.4
22.5°	646.6	650.8	663.3	672.7	676.9
25°	629.8	634.0	649.7	659.1	663.3
27.5°	608.9	615.2	629.8	643.4	648.7
30°	588.0	594.3	611.0	626.7	633.0
32.5°	567.1	574.4	592.2	608.9	616.2
35°	544.1	551.4	571.3	591.1	599.5
37.5°	520.0	529.4	550.3	572.3	581.7
40°	495.9	505.3	527.3	552.4	562.9
42.5°	476.0	480.2	505.3	532.5	543.0
45°	453.0	456.2	482.3	511.6	524.2
47.5°	419.5	431.1	459.3	491.7	504.3
50°	393.4	405.9	435.2	469.8	483.4
52.5°	371.4	379.8	412.2	446.7	462.4
55°	347.4	353.6	387.1	423.7	440.5
57.5°	318.1	329.6	363.0	400.7	417.5
60°	285.6	300.3	336.9	377.7	394.4
62.5°	264.7	273.1	312.8	353.6	372.5
65°	234.4	244.8	286.7	328.5	348.4
67.5°	209.3	219.7	262.6	304.5	324.3
70°	182.0	192.5	237.5	279.3	299.2
72.5°	150.7	165.3	212.4	254.2	275.2
75°	125.6	139.2	185.2	227.0	243.8
77.5°	97.3	115.1	158.0	192.5	205.1
80°	72.2	90.0	128.7	153.8	165.3
82.5°	49.2	67.0	96.3	115.1	121.4
85°	29.3	41.9	61.7	72.2	71.1
87.5°	13.6	17.8	25.1	25.1	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)