

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: P312498

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-HRP-CA125-W2A-U-4500K**

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: P312498  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
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-L83050-HRP-CA125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 4500K 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**

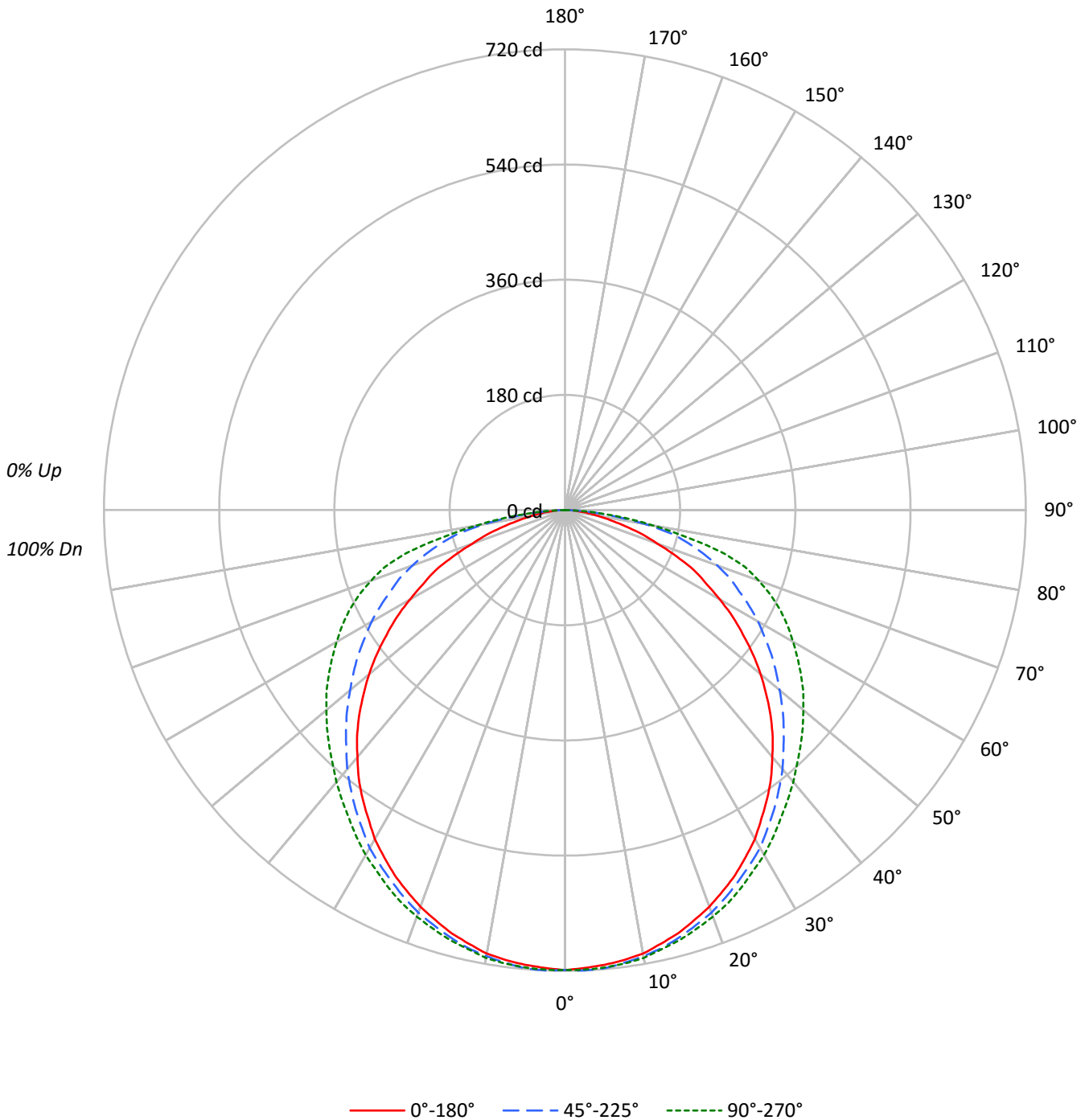
Lumens per Lamp: N/A  
Luminaire Lumens: 2183.0 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	1934	1934	1934
5°	1927	1942	1938
10°	1923	1934	1942
15°	1907	1926	1937
20°	1889	1917	1936
25°	1868	1901	1934
30°	1844	1895	1934
35°	1809	1873	1932
40°	1770	1858	1950
45°	1729	1840	1981
50°	1672	1833	2035
55°	1596	1848	2113
60°	1504	1875	2216
65°	1421	1911	2367
70°	1213	1994	2535
75°	1017	2076	2635
80°	832	2005	2197
85°	722	1488	1615



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.1	3.1
10°-20°	194.9	8.9
20°-30°	295.3	13.5
30°-40°	356.6	16.3
40°-50°	374.7	17.2
50°-60°	352.6	16.2
60°-70°	294.0	13.5
70°-80°	194.8	8.9
80°-90°	51.9	2.4
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°	558.4	25.6
0°-40°	915.0	41.9
0°-60°	1642.3	75.2
0°-90°	2183.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2183.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	713	715	719	719	718	68
15°	684	687	691	694	695	193
25°	629	634	640	649	651	290
35°	551	556	570	582	588	344
45°	454	461	483	508	520	350
55°	340	355	394	434	450	304
65°	223	242	300	350	372	217
75°	98	136	200	241	253	106
85°	23	36	48	52	52	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	718.8	718.8	718.8	718.8	718.8
2.5°	716.1	717.5	720.2	720.2	718.8
5°	713.3	714.7	718.8	718.8	717.5
7.5°	709.2	710.6	713.3	716.1	714.7
10°	703.7	705.1	707.8	710.6	710.6
12.5°	694.0	695.4	700.9	702.3	702.3
15°	684.4	687.2	691.3	694.0	695.4
17.5°	672.0	674.8	680.3	685.8	685.8
20°	659.6	662.4	669.3	674.8	676.1
22.5°	644.5	648.6	655.5	662.4	665.1
25°	629.3	633.5	640.3	648.6	651.4
27.5°	611.4	615.6	625.2	634.8	636.2
30°	593.5	597.7	610.0	618.3	622.4
32.5°	571.5	577.0	589.4	601.8	605.9
35°	550.8	556.3	570.1	582.5	588.0
37.5°	528.8	534.3	549.5	564.6	571.5
40°	504.0	510.9	528.8	545.3	555.0
42.5°	480.6	487.5	505.4	527.4	537.1
45°	454.4	461.3	483.4	508.1	520.5
47.5°	426.9	435.2	461.3	491.6	504.0
50°	399.4	409.0	437.9	472.3	486.1
52.5°	370.4	382.8	415.9	453.1	469.6
55°	340.1	355.3	393.8	433.8	450.3
57.5°	311.2	325.0	370.4	413.1	431.0
60°	279.5	297.4	348.4	392.5	411.7
62.5°	249.3	268.5	325.0	371.8	392.5
65°	223.1	242.4	300.2	349.8	371.8
67.5°	188.7	214.8	279.5	326.4	348.4
70°	154.2	190.0	253.4	301.6	322.2
72.5°	128.1	162.5	227.2	275.4	294.7
75°	97.8	136.3	199.7	241.0	253.4
77.5°	73.0	112.9	170.8	191.4	192.8
80°	53.7	86.8	129.4	136.3	141.8
82.5°	37.2	60.6	84.0	92.3	95.0
85°	23.4	35.8	48.2	52.3	52.3
87.5°	12.4	13.8	16.5	16.5	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)