

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: P309950

Luminaire Tested: **24FCZ2-35-UNV-L82765-RDP-CA08-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: P309950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-35-UNV-L82765-RDP-CA08-W2A-U-2700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (168) 2700K 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**

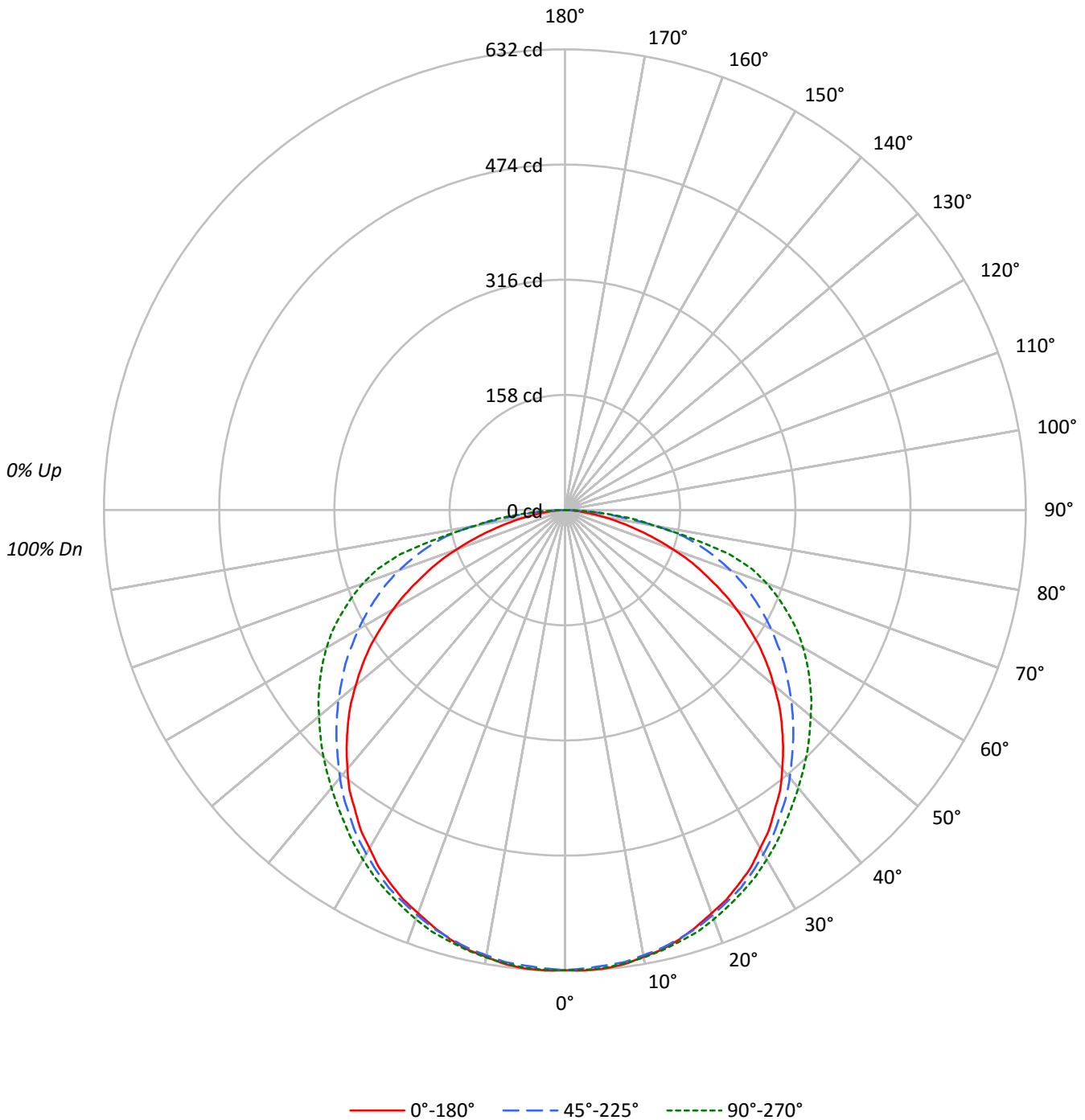
Lumens per Lamp: N/A  
Luminaire Lumens: 2007.0 lumens  
Efficiency: N/A  
Efficacy: 71.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 28  
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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	849	849	849
5°	852	847	851
10°	850	847	851
15°	849	847	853
20°	842	847	855
25°	839	848	857
30°	832	846	860
35°	824	844	863
40°	815	843	874
45°	801	843	894
50°	783	848	921
55°	764	862	962
60°	731	879	1015
65°	684	910	1078
70°	623	952	1159
75°	528	1004	1211
80°	417	1010	979
85°	307	769	860



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.9	3.0
10°-20°	172.3	8.6
20°-30°	263.5	13.1
30°-40°	322.1	16.0
40°-50°	343.3	17.1
50°-60°	328.3	16.4
60°-70°	278.1	13.9
70°-80°	186.9	9.3
80°-90°	52.7	2.6
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°	495.7	24.7
0°-40°	817.8	40.7
0°-60°	1489.3	74.2
0°-90°	2007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2007.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	631	631	631	631	631	
5°	631	630	627	630	630	60
15°	609	609	608	613	612	172
25°	565	567	571	576	577	261
35°	502	506	514	524	526	314
45°	421	428	443	462	470	325
55°	326	338	367	396	410	290
65°	215	237	286	324	338	213
75°	102	138	193	226	233	109
85°	20	41	50	54	56	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	631.1	631.1	631.1	631.1	631.1
2.5°	632.1	632.1	629.2	631.1	631.1
5°	631.1	630.1	627.2	630.1	630.1
7.5°	628.2	627.2	625.2	628.2	627.2
10°	622.2	622.2	620.2	623.2	623.2
12.5°	617.2	616.2	615.2	619.2	618.2
15°	609.2	609.2	608.2	613.2	612.2
17.5°	599.3	600.3	601.3	605.3	606.3
20°	588.3	590.3	591.3	597.3	597.3
22.5°	578.4	579.4	581.4	587.3	587.3
25°	565.4	567.4	571.4	576.4	577.4
27.5°	552.5	553.5	558.5	565.4	566.4
30°	535.6	538.6	544.5	552.5	553.5
32.5°	520.6	523.6	530.6	538.6	540.6
35°	501.7	505.7	513.7	523.6	525.6
37.5°	484.8	487.8	497.7	508.7	511.7
40°	463.9	469.9	479.8	492.8	497.7
42.5°	443.0	449.0	460.9	477.8	483.8
45°	421.1	428.1	443.0	461.9	469.9
47.5°	399.2	407.2	424.1	446.0	454.9
50°	374.3	384.3	405.2	430.1	440.0
52.5°	350.4	362.4	385.3	413.1	426.1
55°	325.5	337.5	367.3	396.2	410.1
57.5°	297.7	313.6	346.4	379.3	394.2
60°	271.8	286.7	326.5	362.4	377.3
62.5°	243.9	263.8	306.6	344.4	359.4
65°	215.0	236.9	285.7	323.5	338.5
67.5°	189.1	213.0	264.8	302.6	317.6
70°	158.3	188.1	241.9	279.7	294.7
72.5°	129.4	162.3	218.0	254.8	268.8
75°	101.5	138.4	193.1	226.0	232.9
77.5°	75.7	114.5	167.2	181.2	176.2
80°	53.8	91.6	130.4	123.4	126.4
82.5°	34.8	69.7	80.6	91.6	94.6
85°	19.9	40.8	49.8	53.8	55.7
87.5°	9.0	14.9	19.9	19.9	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)