

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: P309823

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CA08-W2A-U-6500K**

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: P309823  
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: 24FCZ2-30HE-UNV-L82765-RDP-CA08-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (336) 6500K 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**

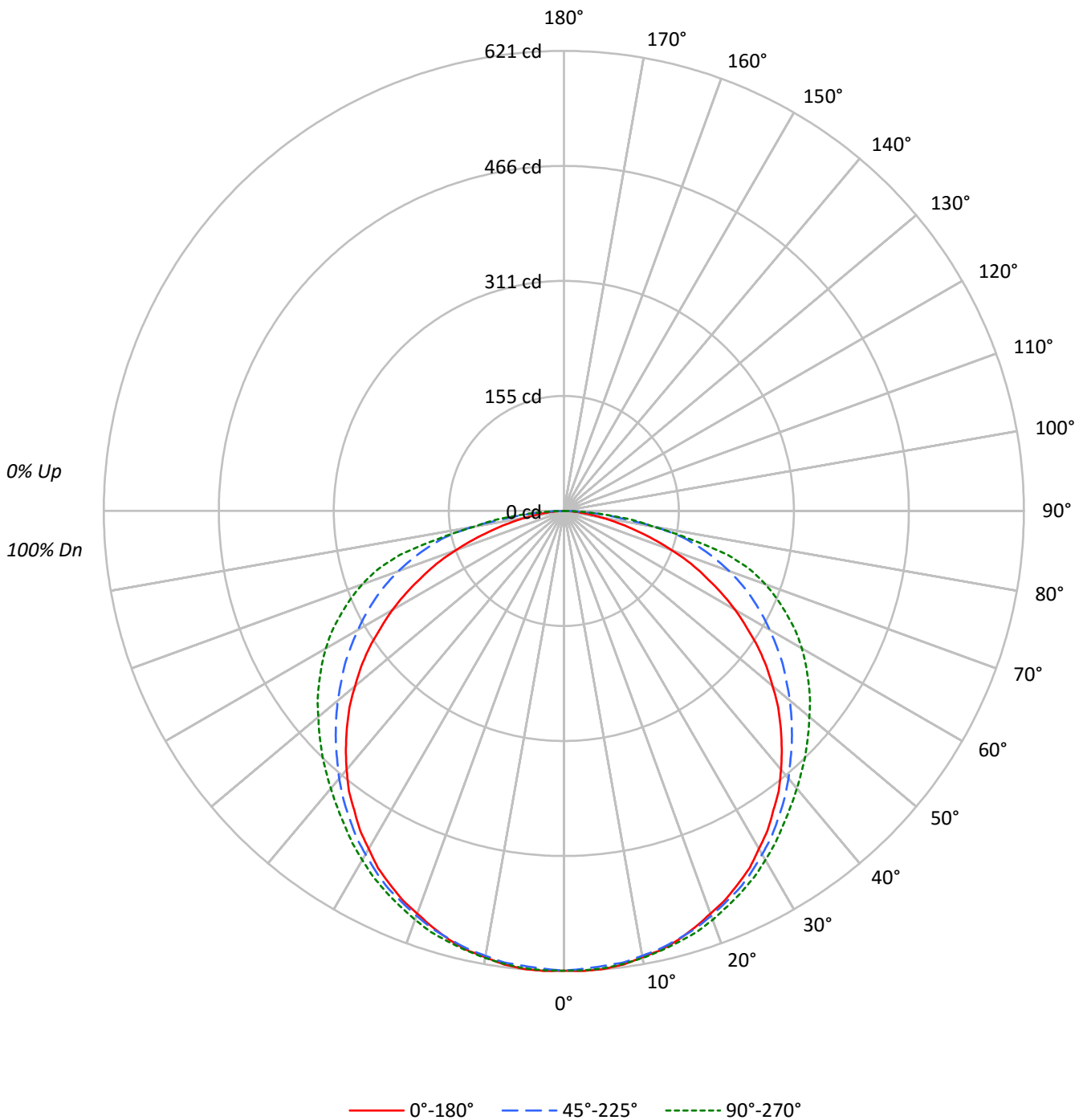
Lumens per Lamp: N/A  
Luminaire Lumens: 1973.0 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	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	67	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°	835	835	835
5°	838	833	837
10°	836	833	837
15°	834	833	838
20°	828	832	841
25°	825	834	843
30°	818	832	845
35°	810	829	849
40°	801	828	859
45°	788	829	879
50°	770	834	906
55°	751	847	946
60°	719	864	998
65°	673	894	1059
70°	612	935	1140
75°	519	987	1190
80°	409	993	963
85°	303	755	846



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.9	3.0
10°-20°	169.4	8.6
20°-30°	259.0	13.1
30°-40°	316.7	16.0
40°-50°	337.5	17.1
50°-60°	322.7	16.4
60°-70°	273.4	13.9
70°-80°	183.7	9.3
80°-90°	51.8	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°	487.3	24.7
0°-40°	803.9	40.7
0°-60°	1464.1	74.2
0°-90°	1973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1973.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	620	620	616	620	620	59
15°	599	599	598	603	602	169
25°	556	558	562	567	568	256
35°	493	497	505	515	517	309
45°	414	421	436	454	462	319
55°	320	332	361	390	403	285
65°	211	233	281	318	333	210
75°	100	136	190	222	229	107
85°	20	40	49	53	55	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	620.5	620.5	620.5	620.5	620.5
2.5°	621.4	621.4	618.5	620.5	620.5
5°	620.5	619.5	616.5	619.5	619.5
7.5°	617.5	616.5	614.6	617.5	616.5
10°	611.6	611.6	609.7	612.6	612.6
12.5°	606.8	605.8	604.8	608.7	607.7
15°	598.9	598.9	597.9	602.8	601.9
17.5°	589.1	590.1	591.1	595.0	596.0
20°	578.4	580.3	581.3	587.2	587.2
22.5°	568.6	569.6	571.5	577.4	577.4
25°	555.9	557.8	561.7	566.6	567.6
27.5°	543.1	544.1	549.0	555.9	556.8
30°	526.5	529.4	535.3	543.1	544.1
32.5°	511.8	514.8	521.6	529.4	531.4
35°	493.2	497.1	505.0	514.8	516.7
37.5°	476.6	479.5	489.3	500.1	503.0
40°	456.0	461.9	471.7	484.4	489.3
42.5°	435.5	441.4	453.1	469.7	475.6
45°	414.0	420.8	435.5	454.1	461.9
47.5°	392.4	400.3	416.9	438.4	447.2
50°	368.0	377.8	398.3	422.8	432.6
52.5°	344.5	356.2	378.7	406.1	418.9
55°	320.0	331.8	361.1	389.5	403.2
57.5°	292.6	308.3	340.6	372.9	387.5
60°	267.2	281.8	321.0	356.2	370.9
62.5°	239.8	259.3	301.4	338.6	353.3
65°	211.4	232.9	280.9	318.1	332.7
67.5°	185.9	209.4	260.3	297.5	312.2
70°	155.6	185.0	237.8	275.0	289.7
72.5°	127.2	159.5	214.3	250.5	264.2
75°	99.8	136.0	189.9	222.1	229.0
77.5°	74.4	112.5	164.4	178.1	173.2
80°	52.8	90.0	128.2	121.4	124.3
82.5°	34.3	68.5	79.3	90.0	93.0
85°	19.6	40.1	48.9	52.8	54.8
87.5°	8.8	14.7	19.6	19.6	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)