

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: P309976

Luminaire Tested: **24FCZ2-35-UNV-L82765-RDP-CP125-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: P309976  
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-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (168) 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**

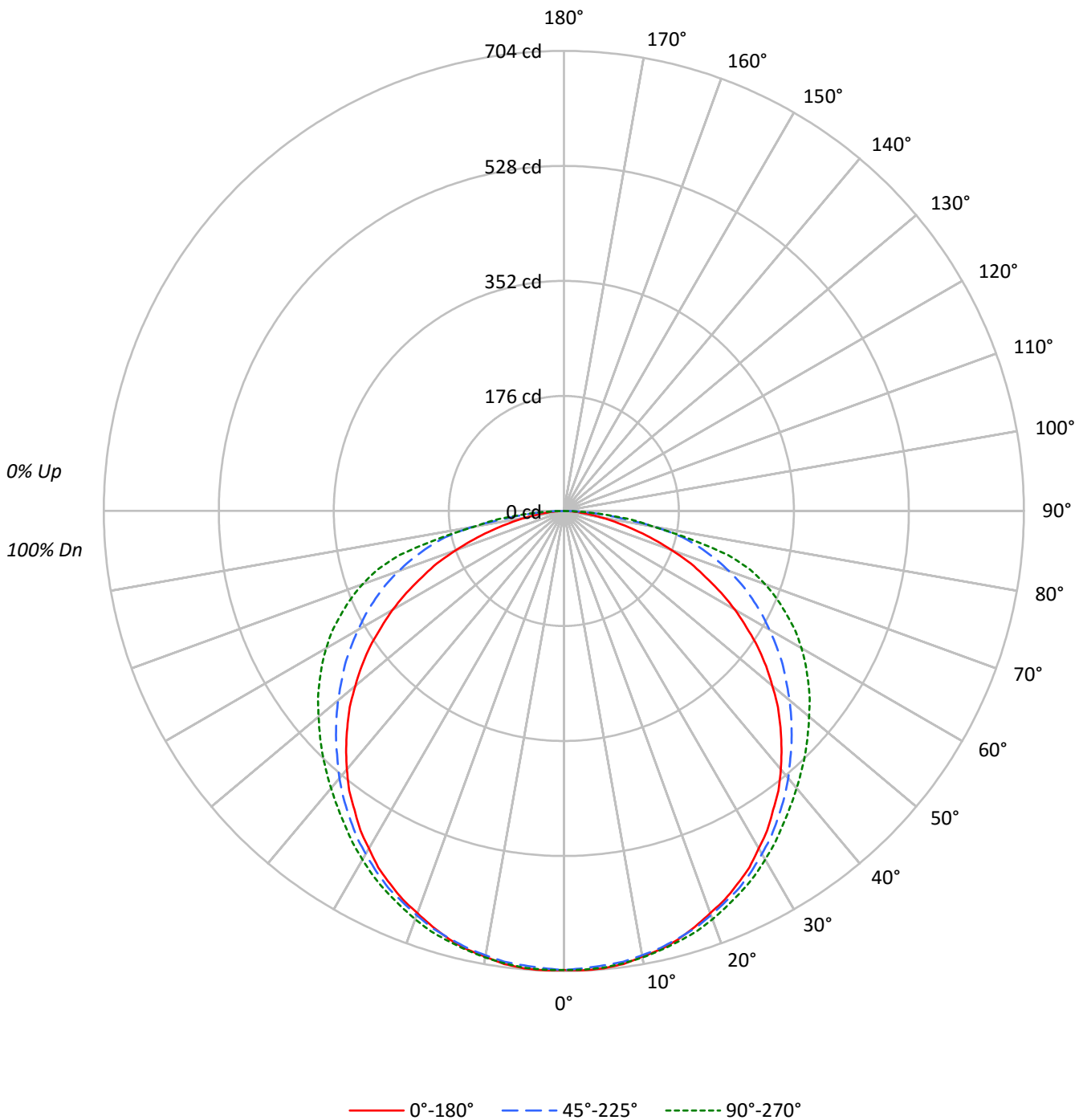
Lumens per Lamp: N/A  
Luminaire Lumens: 2234.0 lumens  
Efficiency: N/A  
Efficacy: 76.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 29.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P309976

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P309976

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-6500K

**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°	945	945	945
5°	949	943	947
10°	946	943	948
15°	945	943	949
20°	938	942	952
25°	934	944	954
30°	926	942	957
35°	917	939	961
40°	907	938	973
45°	892	938	995
50°	872	944	1025
55°	850	959	1071
60°	814	978	1130
65°	762	1012	1200
70°	693	1059	1290
75°	587	1118	1348
80°	463	1125	1090
85°	343	855	959



TEST NUMBER: P309976

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.6	3.0
10°-20°	191.8	8.6
20°-30°	293.3	13.1
30°-40°	358.5	16.0
40°-50°	382.1	17.1
50°-60°	365.4	16.4
60°-70°	309.5	13.9
70°-80°	208.0	9.3
80°-90°	58.7	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°	551.7	24.7
0°-40°	910.3	40.7
0°-60°	1657.8	74.2
0°-90°	2234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2234.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	702	701	698	701	701	67
15°	678	678	677	683	682	191
25°	629	632	636	642	643	290
35°	558	563	572	583	585	350
45°	469	476	493	514	523	362
55°	362	376	409	441	456	323
65°	239	264	318	360	377	238
75°	113	154	215	252	259	121
85°	22	45	55	60	62	27
90°	0	0	0	0	0	



TEST NUMBER: P309976

CATALOG NUMBER: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	702.5	702.5	702.5	702.5	702.5
2.5°	703.6	703.6	700.3	702.5	702.5
5°	702.5	701.4	698.1	701.4	701.4
7.5°	699.2	698.1	695.9	699.2	698.1
10°	692.6	692.6	690.3	693.7	693.7
12.5°	687.0	685.9	684.8	689.2	688.1
15°	678.2	678.2	677.0	682.6	681.5
17.5°	667.1	668.2	669.3	673.7	674.8
20°	654.9	657.1	658.2	664.9	664.9
22.5°	643.8	644.9	647.1	653.8	653.8
25°	629.4	631.6	636.0	641.6	642.7
27.5°	615.0	616.1	621.6	629.4	630.5
30°	596.2	599.5	606.1	615.0	616.1
32.5°	579.5	582.9	590.6	599.5	601.7
35°	558.5	562.9	571.8	582.9	585.1
37.5°	539.6	543.0	554.0	566.2	569.6
40°	516.4	523.0	534.1	548.5	554.0
42.5°	493.1	499.7	513.0	531.9	538.5
45°	468.7	476.5	493.1	514.2	523.0
47.5°	444.3	453.2	472.0	496.4	506.4
50°	416.6	427.7	451.0	478.7	489.8
52.5°	390.0	403.3	428.8	459.9	474.3
55°	362.3	375.6	408.9	441.0	456.5
57.5°	331.3	349.0	385.6	422.2	438.8
60°	302.5	319.1	363.5	403.3	420.0
62.5°	271.5	293.6	341.3	383.4	400.0
65°	239.3	263.7	318.0	360.1	376.8
67.5°	210.5	237.1	294.8	336.9	353.5
70°	176.2	209.4	269.3	311.4	328.0
72.5°	144.1	180.6	242.7	283.7	299.2
75°	113.0	154.0	215.0	251.5	259.3
77.5°	84.2	127.4	186.2	201.7	196.1
80°	59.8	101.9	145.2	137.4	140.7
82.5°	38.8	77.6	89.8	101.9	105.3
85°	22.2	45.4	55.4	59.8	62.1
87.5°	10.0	16.6	22.2	22.2	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)