

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: P309955

Luminaire Tested: **24FCZ2-35-UNV-L82765-RDP-CA08-W2A-U-5000K**

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: P309955  
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-5000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (168) 5000K 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**

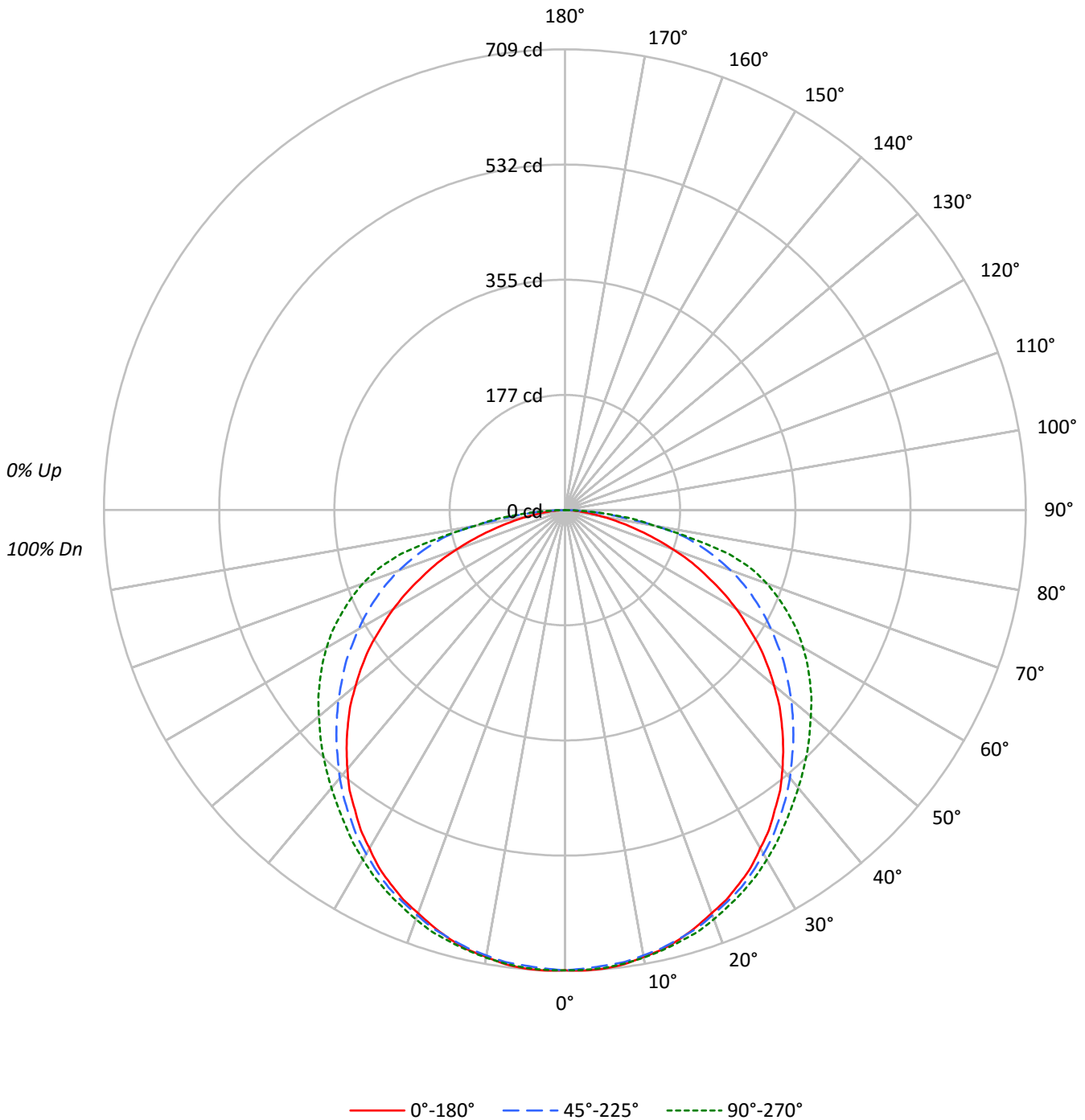
Lumens per Lamp: N/A  
Luminaire Lumens: 2252.0 lumens  
Efficiency: N/A  
Efficacy: 78.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	953	953	953
5°	957	950	955
10°	954	951	955
15°	952	951	957
20°	945	950	960
25°	942	952	962
30°	934	949	965
35°	925	947	969
40°	914	946	981
45°	899	946	1003
50°	879	952	1033
55°	857	967	1080
60°	820	986	1139
65°	768	1021	1209
70°	699	1068	1301
75°	592	1127	1359
80°	467	1134	1099
85°	344	863	966



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.2	3.0
10°-20°	193.3	8.6
20°-30°	295.7	13.1
30°-40°	361.4	16.0
40°-50°	385.2	17.1
50°-60°	368.3	16.4
60°-70°	312.0	13.9
70°-80°	209.7	9.3
80°-90°	59.2	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°	556.2	24.7
0°-40°	917.6	40.7
0°-60°	1671.2	74.2
0°-90°	2252.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2252.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	708	707	704	707	707	67
15°	684	684	682	688	687	193
25°	634	637	641	647	648	292
35°	563	567	576	588	590	353
45°	472	480	497	518	527	364
55°	365	379	412	445	460	325
65°	241	266	321	363	380	240
75°	114	155	217	254	261	122
85°	22	46	56	60	63	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	708.2	708.2	708.2	708.2	708.2
2.5°	709.3	709.3	706.0	708.2	708.2
5°	708.2	707.1	703.7	707.1	707.1
7.5°	704.8	703.7	701.5	704.8	703.7
10°	698.1	698.1	695.9	699.3	699.3
12.5°	692.6	691.4	690.3	694.8	693.7
15°	683.6	683.6	682.5	688.1	687.0
17.5°	672.4	673.6	674.7	679.1	680.3
20°	660.2	662.4	663.5	670.2	670.2
22.5°	649.0	650.1	652.3	659.0	659.0
25°	634.5	636.7	641.2	646.8	647.9
27.5°	619.9	621.1	626.6	634.5	635.6
30°	601.0	604.3	611.0	619.9	621.1
32.5°	584.2	587.6	595.4	604.3	606.5
35°	563.0	567.4	576.4	587.6	589.8
37.5°	544.0	547.3	558.5	570.8	574.1
40°	520.5	527.2	538.4	552.9	558.5
42.5°	497.1	503.8	517.2	536.2	542.9
45°	472.5	480.3	497.1	518.3	527.2
47.5°	447.9	456.9	475.8	500.4	510.5
50°	420.0	431.2	454.6	482.6	493.7
52.5°	393.2	406.6	432.3	463.6	478.1
55°	365.3	378.7	412.2	444.6	460.2
57.5°	334.0	351.9	388.7	425.6	442.3
60°	304.9	321.7	366.4	406.6	423.3
62.5°	273.7	296.0	344.0	386.5	403.2
65°	241.3	265.9	320.6	363.0	379.8
67.5°	212.2	239.0	297.1	339.6	356.3
70°	177.6	211.1	271.4	313.9	330.6
72.5°	145.2	182.1	244.6	286.0	301.6
75°	113.9	155.3	216.7	253.6	261.4
77.5°	84.9	128.5	187.7	203.3	197.7
80°	60.3	102.8	146.3	138.5	141.9
82.5°	39.1	78.2	90.5	102.8	106.1
85°	22.3	45.8	55.9	60.3	62.6
87.5°	10.1	16.8	22.3	22.3	21.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)