

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: P309947

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-CP250-W2A-U-5500K**

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: P309947  
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: 24FCZ2-35HE-UNV-L82765-RDP-CP250-W2A-U-5500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET  
Light Source: (336) 5500K 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**

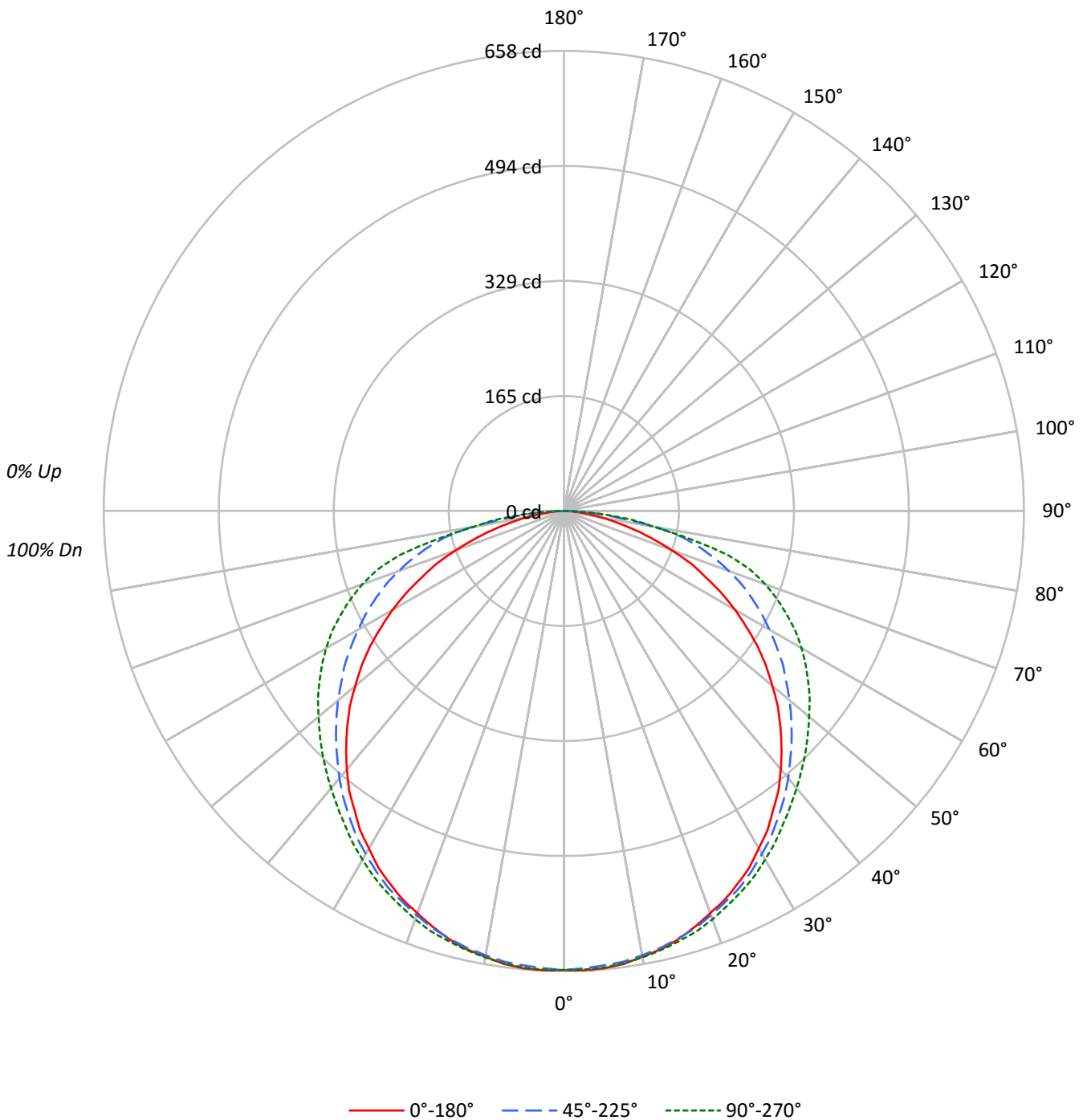
Lumens per Lamp: N/A  
Luminaire Lumens: 2088.0 lumens  
Efficiency: N/A  
Efficacy: 78.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	883	883	883
5°	887	881	885
10°	884	882	886
15°	883	881	887
20°	876	881	890
25°	873	883	892
30°	866	880	895
35°	857	878	898
40°	848	877	909
45°	834	877	930
50°	815	882	958
55°	795	897	1001
60°	761	914	1056
65°	712	946	1121
70°	648	990	1206
75°	549	1044	1260
80°	433	1051	1019
85°	320	800	895



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.3	3.0
10°-20°	179.3	8.6
20°-30°	274.1	13.1
30°-40°	335.1	16.0
40°-50°	357.2	17.1
50°-60°	341.5	16.4
60°-70°	289.3	13.9
70°-80°	194.4	9.3
80°-90°	54.8	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°	515.7	24.7
0°-40°	850.8	40.7
0°-60°	1549.4	74.2
0°-90°	2088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2088.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	657	656	652	656	656	62
15°	634	634	633	638	637	179
25°	588	590	594	600	601	271
35°	522	526	534	545	547	327
45°	438	445	461	481	489	338
55°	339	351	382	412	427	302
65°	224	246	297	337	352	222
75°	106	144	201	235	242	113
85°	21	42	52	56	58	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	656.6	656.6	656.6	656.6	656.6
2.5°	657.7	657.7	654.5	656.6	656.6
5°	656.6	655.6	652.5	655.6	655.6
7.5°	653.5	652.5	650.4	653.5	652.5
10°	647.3	647.3	645.2	648.3	648.3
12.5°	642.1	641.1	640.0	644.2	643.2
15°	633.8	633.8	632.8	638.0	636.9
17.5°	623.5	624.5	625.5	629.7	630.7
20°	612.1	614.2	615.2	621.4	621.4
22.5°	601.7	602.8	604.8	611.0	611.0
25°	588.3	590.3	594.5	599.7	600.7
27.5°	574.8	575.8	581.0	588.3	589.3
30°	557.2	560.3	566.5	574.8	575.8
32.5°	541.7	544.8	552.0	560.3	562.4
35°	522.0	526.1	534.4	544.8	546.8
37.5°	504.4	507.5	517.8	529.2	532.3
40°	482.6	488.8	499.2	512.7	517.8
42.5°	460.9	467.1	479.5	497.1	503.3
45°	438.1	445.3	460.9	480.6	488.8
47.5°	415.3	423.6	441.2	464.0	473.3
50°	389.4	399.8	421.5	447.4	457.8
52.5°	364.6	377.0	400.8	429.8	443.3
55°	338.7	351.1	382.2	412.2	426.7
57.5°	309.7	326.2	360.4	394.6	410.1
60°	282.7	298.3	339.7	377.0	392.5
62.5°	253.7	274.5	319.0	358.3	373.9
65°	223.7	246.5	297.2	336.6	352.1
67.5°	196.8	221.6	275.5	314.8	330.4
70°	164.7	195.7	251.7	291.0	306.6
72.5°	134.6	168.8	226.8	265.1	279.6
75°	105.6	144.0	200.9	235.1	242.3
77.5°	78.7	119.1	174.0	188.5	183.3
80°	55.9	95.3	135.7	128.4	131.5
82.5°	36.2	72.5	83.9	95.3	98.4
85°	20.7	42.5	51.8	55.9	58.0
87.5°	9.3	15.5	20.7	20.7	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)