

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: P309983

Luminaire Tested: **24FCZ2-35-UNV-L82765-RDP-CP187-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: P309983  
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-CP187-W2A-U-5500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET  
Light Source: (168) 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**

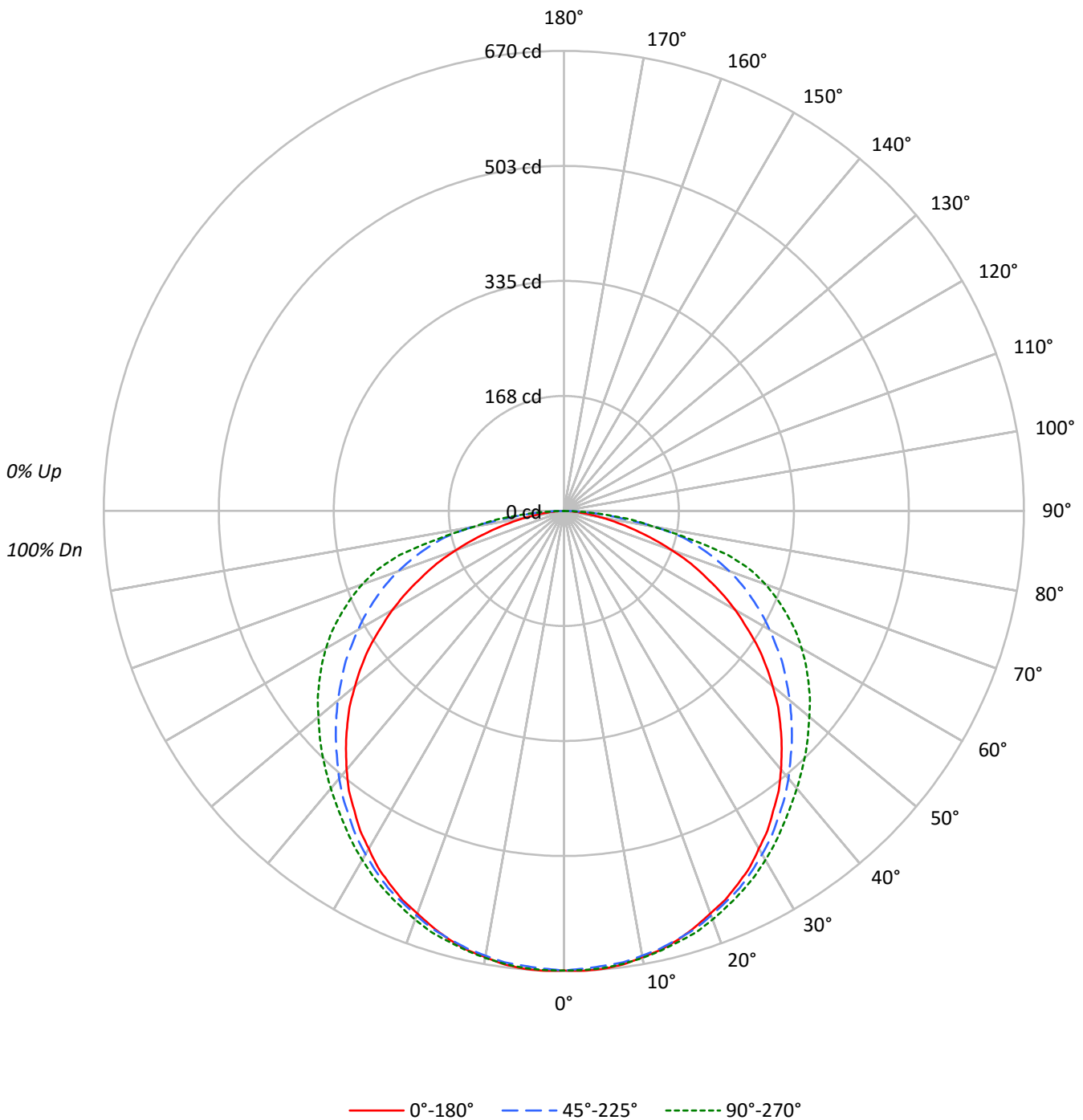
Lumens per Lamp: N/A  
Luminaire Lumens: 2128.0 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	900	900	900
5°	904	898	902
10°	901	898	903
15°	900	898	904
20°	893	898	907
25°	890	900	909
30°	882	897	912
35°	874	895	915
40°	864	894	927
45°	850	894	948
50°	831	899	976
55°	810	914	1020
60°	776	932	1076
65°	726	964	1143
70°	660	1009	1229
75°	560	1065	1284
80°	442	1072	1039
85°	326	815	912



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.5	3.0
10°-20°	182.7	8.6
20°-30°	279.4	13.1
30°-40°	341.5	16.0
40°-50°	364.0	17.1
50°-60°	348.0	16.4
60°-70°	294.8	13.9
70°-80°	198.2	9.3
80°-90°	55.9	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°	525.6	24.7
0°-40°	867.1	40.7
0°-60°	1579.1	74.2
0°-90°	2128.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2128.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	669	669	669	669	669	
5°	669	668	665	668	668	64
15°	646	646	645	650	649	182
25°	600	602	606	611	612	276
35°	532	536	545	555	557	333
45°	446	454	470	490	498	344
55°	345	358	390	420	435	307
65°	228	251	303	343	359	226
75°	108	147	205	240	247	115
85°	21	43	53	57	59	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	669.2	669.2	669.2	669.2	669.2
2.5°	670.3	670.3	667.1	669.2	669.2
5°	669.2	668.1	665.0	668.1	668.1
7.5°	666.0	665.0	662.9	666.0	665.0
10°	659.7	659.7	657.6	660.8	660.8
12.5°	654.4	653.4	652.3	656.5	655.5
15°	646.0	646.0	644.9	650.2	649.1
17.5°	635.4	636.5	637.5	641.8	642.8
20°	623.8	625.9	627.0	633.3	633.3
22.5°	613.3	614.3	616.4	622.8	622.8
25°	599.5	601.6	605.9	611.1	612.2
27.5°	585.8	586.9	592.1	599.5	600.6
30°	567.9	571.0	577.4	585.8	586.9
32.5°	552.0	555.2	562.6	571.0	573.1
35°	532.0	536.2	544.6	555.2	557.3
37.5°	514.0	517.2	527.8	539.4	542.5
40°	491.9	498.2	508.8	522.5	527.8
42.5°	469.7	476.0	488.7	506.6	513.0
45°	446.5	453.9	469.7	489.8	498.2
47.5°	423.3	431.7	449.6	472.9	482.4
50°	396.9	407.4	429.6	456.0	466.5
52.5°	371.5	384.2	408.5	438.0	451.8
55°	345.2	357.8	389.5	420.1	434.9
57.5°	315.6	332.5	367.3	402.2	418.0
60°	288.2	304.0	346.2	384.2	400.0
62.5°	258.6	279.7	325.1	365.2	381.0
65°	228.0	251.2	302.9	343.0	358.9
67.5°	200.5	225.9	280.8	320.9	336.7
70°	167.8	199.5	256.5	296.6	312.4
72.5°	137.2	172.0	231.2	270.2	285.0
75°	107.7	146.7	204.8	239.6	247.0
77.5°	80.2	121.4	177.3	192.1	186.8
80°	57.0	97.1	138.3	130.9	134.1
82.5°	36.9	73.9	85.5	97.1	100.3
85°	21.1	43.3	52.8	57.0	59.1
87.5°	9.5	15.8	21.1	21.1	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)