

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: P309895

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP187-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: P309895  
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: 24FCZ2-30-UNV-L82765-RDP-CP187-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" 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: 1824.0 lumens  
Efficiency: N/A  
Efficacy: 74.8 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

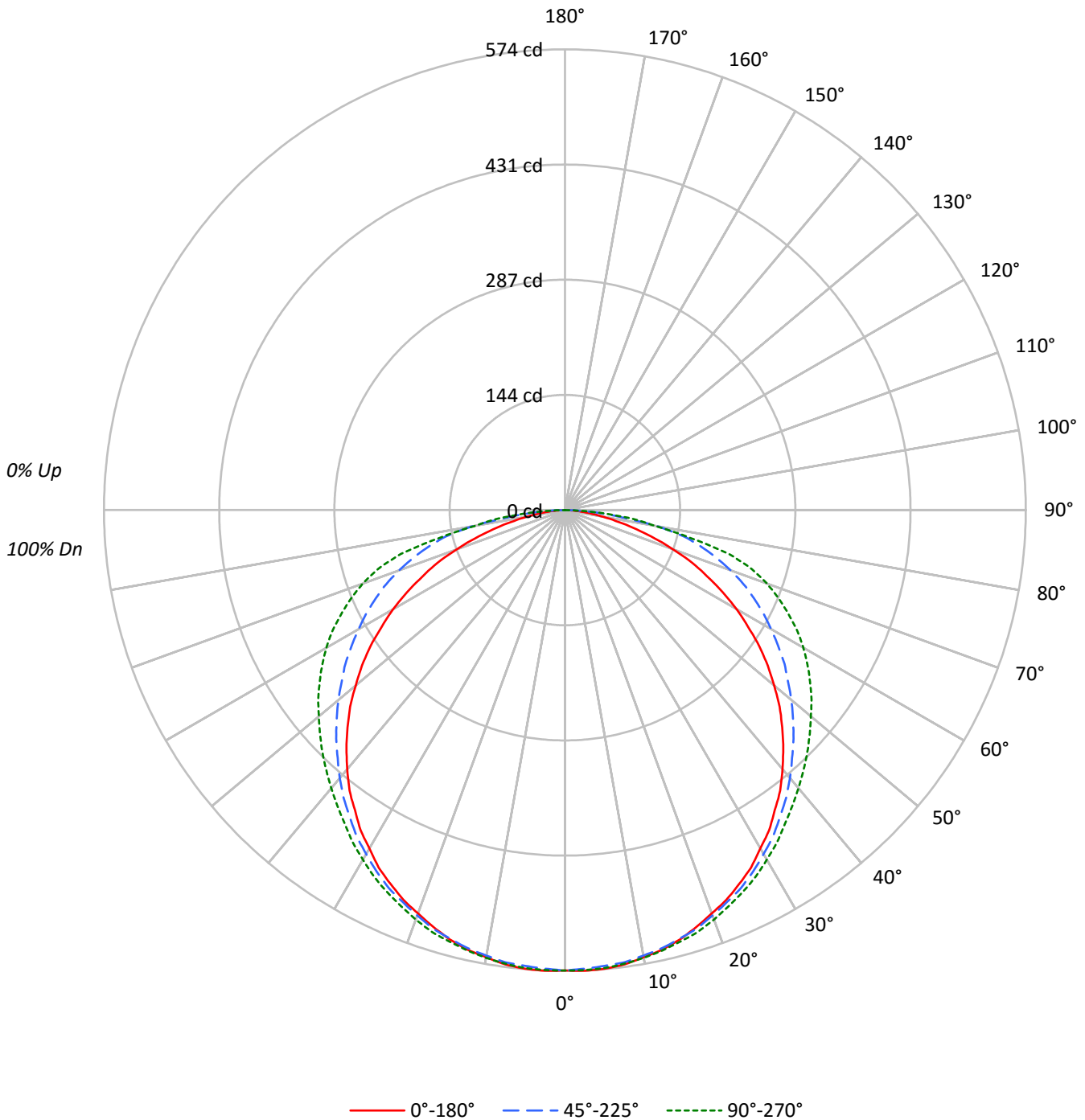
Input Watts (W): 24.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	772	772	772
5°	775	770	774
10°	773	770	774
15°	771	770	775
20°	766	769	777
25°	763	771	779
30°	756	769	781
35°	749	767	785
40°	741	766	795
45°	728	766	812
50°	712	771	837
55°	694	783	874
60°	665	798	923
65°	622	827	979
70°	566	865	1054
75°	480	912	1101
80°	379	918	890
85°	279	698	783



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.4	3.0
10°-20°	156.6	8.6
20°-30°	239.5	13.1
30°-40°	292.7	16.0
40°-50°	312.0	17.1
50°-60°	298.3	16.4
60°-70°	252.7	13.9
70°-80°	169.8	9.3
80°-90°	47.9	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°	450.5	24.7
0°-40°	743.2	40.7
0°-60°	1353.5	74.2
0°-90°	1824.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1824.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	574	573	570	573	573	54
15°	554	554	553	557	556	156
25°	514	516	519	524	525	237
35°	456	460	467	476	478	286
45°	383	389	403	420	427	295
55°	296	307	334	360	373	263
65°	195	215	260	294	308	194
75°	92	126	176	205	212	99
85°	18	37	45	49	51	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	573.6	573.6	573.6	573.6	573.6
2.5°	574.5	574.5	571.8	573.6	573.6
5°	573.6	572.7	570.0	572.7	572.7
7.5°	570.9	570.0	568.2	570.9	570.0
10°	565.5	565.5	563.6	566.4	566.4
12.5°	560.9	560.0	559.1	562.7	561.8
15°	553.7	553.7	552.8	557.3	556.4
17.5°	544.6	545.5	546.5	550.1	551.0
20°	534.7	536.5	537.4	542.8	542.8
22.5°	525.6	526.6	528.4	533.8	533.8
25°	513.9	515.7	519.3	523.8	524.7
27.5°	502.1	503.0	507.6	513.9	514.8
30°	486.7	489.5	494.9	502.1	503.0
32.5°	473.2	475.9	482.2	489.5	491.3
35°	456.0	459.6	466.8	475.9	477.7
37.5°	440.6	443.3	452.4	462.3	465.0
40°	421.6	427.0	436.1	447.8	452.4
42.5°	402.6	408.0	418.9	434.3	439.7
45°	382.7	389.0	402.6	419.8	427.0
47.5°	362.8	370.0	385.4	405.3	413.5
50°	340.2	349.2	368.2	390.8	399.9
52.5°	318.5	329.3	350.1	375.5	387.2
55°	295.8	306.7	333.8	360.1	372.7
57.5°	270.5	285.0	314.8	344.7	358.3
60°	247.0	260.6	296.7	329.3	342.9
62.5°	221.7	239.8	278.7	313.0	326.6
65°	195.4	215.3	259.7	294.0	307.6
67.5°	171.9	193.6	240.7	275.0	288.6
70°	143.9	171.0	219.8	254.2	267.8
72.5°	117.6	147.5	198.1	231.6	244.3
75°	92.3	125.8	175.5	205.4	211.7
77.5°	68.8	104.0	152.0	164.7	160.1
80°	48.9	83.2	118.5	112.2	114.9
82.5°	31.7	63.3	73.3	83.2	85.9
85°	18.1	37.1	45.2	48.9	50.7
87.5°	8.1	13.6	18.1	18.1	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)