

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: P309887

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP187-W2A-U-2700K**

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: P309887  
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-2700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET  
Light Source: (168) 2700K 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**

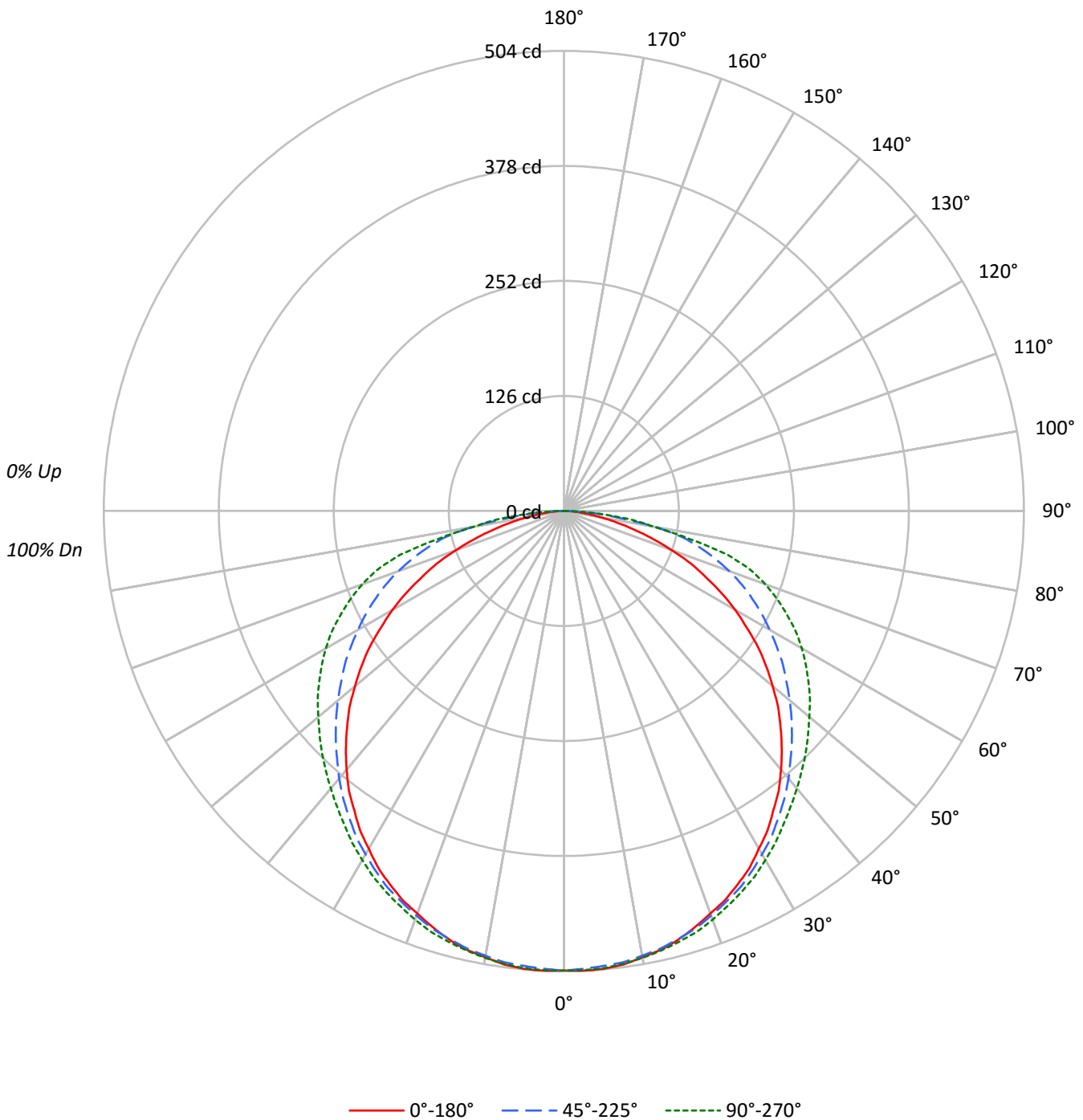
Lumens per Lamp: N/A  
Luminaire Lumens: 1601.0 lumens  
Efficiency: N/A  
Efficacy: 68.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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



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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°	677	677	677
5°	680	676	679
10°	678	676	679
15°	677	676	680
20°	672	675	682
25°	670	677	684
30°	664	675	686
35°	657	673	689
40°	650	672	697
45°	639	672	713
50°	625	677	735
55°	609	687	768
60°	583	701	810
65°	546	726	860
70°	497	759	925
75°	421	801	966
80°	332	806	782
85°	245	613	687



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.8	3.0
10°-20°	137.4	8.6
20°-30°	210.2	13.1
30°-40°	257.0	16.0
40°-50°	273.9	17.1
50°-60°	261.9	16.4
60°-70°	221.8	13.9
70°-80°	149.1	9.3
80°-90°	42.1	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°	395.4	24.7
0°-40°	652.4	40.7
0°-60°	1188.1	74.2
0°-90°	1601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1601.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	504	504	504	504	504	
5°	504	503	500	503	503	48
15°	486	486	485	489	488	137
25°	451	453	456	460	461	208
35°	400	403	410	418	419	251
45°	336	342	353	368	375	259
55°	260	269	293	316	327	231
65°	172	189	228	258	270	170
75°	81	110	154	180	186	87
85°	16	33	40	43	44	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	503.5	503.5	503.5	503.5	503.5
2.5°	504.3	504.3	501.9	503.5	503.5
5°	503.5	502.7	500.3	502.7	502.7
7.5°	501.1	500.3	498.7	501.1	500.3
10°	496.3	496.3	494.7	497.1	497.1
12.5°	492.4	491.6	490.8	493.9	493.1
15°	486.0	486.0	485.2	489.2	488.4
17.5°	478.1	478.9	479.6	482.8	483.6
20°	469.3	470.9	471.7	476.5	476.5
22.5°	461.4	462.2	463.8	468.5	468.5
25°	451.1	452.6	455.8	459.8	460.6
27.5°	440.7	441.5	445.5	451.1	451.9
30°	427.2	429.6	434.4	440.7	441.5
32.5°	415.3	417.7	423.3	429.6	431.2
35°	400.2	403.4	409.8	417.7	419.3
37.5°	386.7	389.1	397.1	405.8	408.2
40°	370.1	374.8	382.8	393.1	397.1
42.5°	353.4	358.1	367.7	381.2	385.9
45°	335.9	341.5	353.4	368.5	374.8
47.5°	318.4	324.8	338.3	355.8	362.9
50°	298.6	306.5	323.2	343.1	351.0
52.5°	279.5	289.1	307.3	329.6	339.9
55°	259.7	269.2	293.0	316.1	327.2
57.5°	237.4	250.1	276.4	302.6	314.5
60°	216.8	228.7	260.5	289.1	301.0
62.5°	194.6	210.4	244.6	274.8	286.7
65°	171.5	189.0	227.9	258.1	270.0
67.5°	150.9	169.9	211.2	241.4	253.3
70°	126.3	150.1	193.0	223.1	235.1
72.5°	103.2	129.4	173.9	203.3	214.4
75°	81.0	110.4	154.1	180.3	185.8
77.5°	60.4	91.3	133.4	144.5	140.6
80°	42.9	73.1	104.0	98.5	100.9
82.5°	27.8	55.6	64.3	73.1	75.4
85°	15.9	32.6	39.7	42.9	44.5
87.5°	7.1	11.9	15.9	15.9	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)