

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: P309033

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CP187-W2A-U-3000K**

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: P309033  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-34HE-UNV-L82765-S-CP187-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.187" POLYCARB SHEET  
Light Source: (168) 3000K 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**

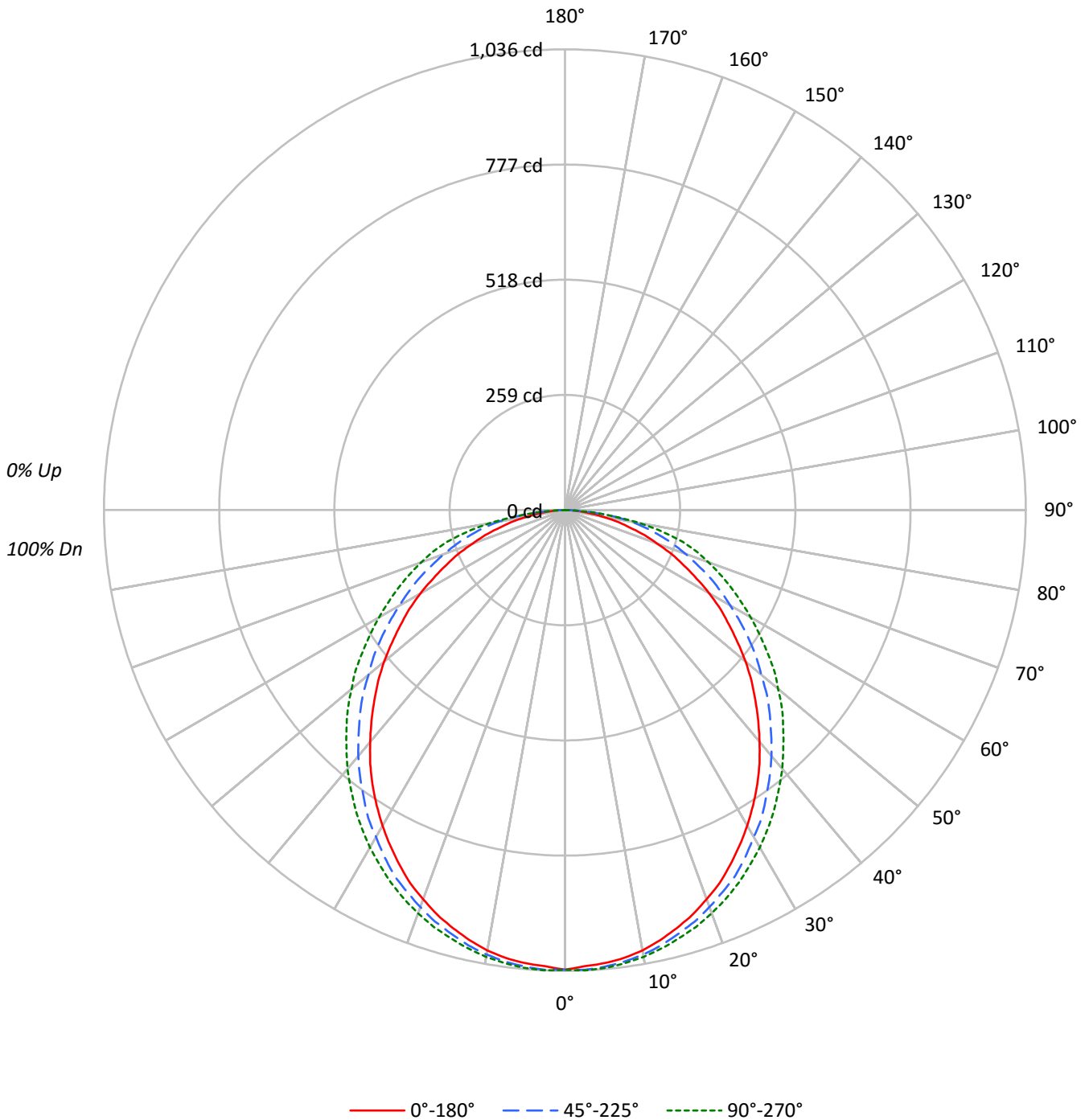
Lumens per Lamp: N/A  
Luminaire Lumens: 2884.0 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2781	2781	2781
5°	2763	2784	2791
10°	2747	2772	2787
15°	2710	2748	2774
20°	2667	2720	2763
25°	2613	2693	2745
30°	2546	2638	2722
35°	2475	2590	2696
40°	2392	2538	2671
45°	2304	2479	2642
50°	2220	2411	2619
55°	2115	2367	2601
60°	2020	2310	2592
65°	1885	2296	2622
70°	1736	2276	2699
75°	1567	2308	2840
80°	1356	2377	2669
85°	1121	1995	1995



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.7	3.4
10°-20°	278.1	9.6
20°-30°	416.1	14.4
30°-40°	492.8	17.1
40°-50°	502.2	17.4
50°-60°	450.2	15.6
60°-70°	352.4	12.2
70°-80°	227.3	7.9
80°-90°	67.1	2.3
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°	792.0	27.5
0°-40°	1284.8	44.5
0°-60°	2237.2	77.6
0°-90°	2884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2884.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1033	1033	1033	1033	1033	
5°	1023	1025	1031	1032	1033	97
15°	973	978	986	994	996	274
25°	880	888	907	919	924	405
35°	754	763	788	813	821	471
45°	606	619	651	685	694	468
55°	451	466	505	540	554	404
65°	296	314	361	396	412	294
75°	151	174	222	260	273	162
85°	36	50	65	65	65	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1033.4	1033.4	1033.4	1033.4	1033.4
2.5°	1026.7	1029.4	1034.8	1036.1	1036.1
5°	1022.7	1025.4	1030.7	1032.1	1033.4
7.5°	1015.9	1017.3	1024.0	1026.7	1028.0
10°	1005.2	1007.9	1014.6	1018.6	1020.0
12.5°	990.4	994.4	1002.5	1007.9	1009.2
15°	972.9	978.3	986.3	994.4	995.8
17.5°	954.0	959.4	970.2	979.6	982.3
20°	931.2	937.9	950.0	960.8	964.8
22.5°	908.3	913.7	928.5	941.9	946.0
25°	880.0	888.1	906.9	919.1	924.4
27.5°	850.4	859.8	878.7	894.8	900.2
30°	819.5	828.9	849.1	869.3	876.0
32.5°	787.2	797.9	822.2	842.4	849.1
35°	753.5	763.0	788.5	812.7	820.8
37.5°	718.6	726.6	756.2	781.8	789.9
40°	680.9	691.6	722.6	752.2	760.3
42.5°	643.2	655.3	686.3	718.6	726.6
45°	605.5	619.0	651.3	684.9	694.3
47.5°	569.2	580.0	616.3	648.6	662.0
50°	530.2	540.9	575.9	612.3	625.7
52.5°	489.8	504.6	542.3	577.3	593.4
55°	450.8	465.6	504.6	539.6	554.4
57.5°	414.4	426.6	466.9	503.3	518.1
60°	375.4	386.2	429.2	468.3	481.7
62.5°	333.7	349.9	394.3	430.6	446.7
65°	296.0	313.5	360.6	395.6	411.8
67.5°	261.0	277.2	322.9	360.6	378.1
70°	220.7	242.2	289.3	327.0	343.1
72.5°	188.4	207.2	255.7	293.3	310.8
75°	150.7	173.6	222.0	259.7	273.2
77.5°	119.8	142.6	188.4	218.0	224.7
80°	87.5	110.3	153.4	168.2	172.2
82.5°	59.2	80.7	110.3	114.4	115.7
85°	36.3	49.8	64.6	64.6	64.6
87.5°	17.5	20.2	22.9	21.5	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)