

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: P309007

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CA08-W2A-U-3500K**

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: P309007  
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-CA08-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC 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**

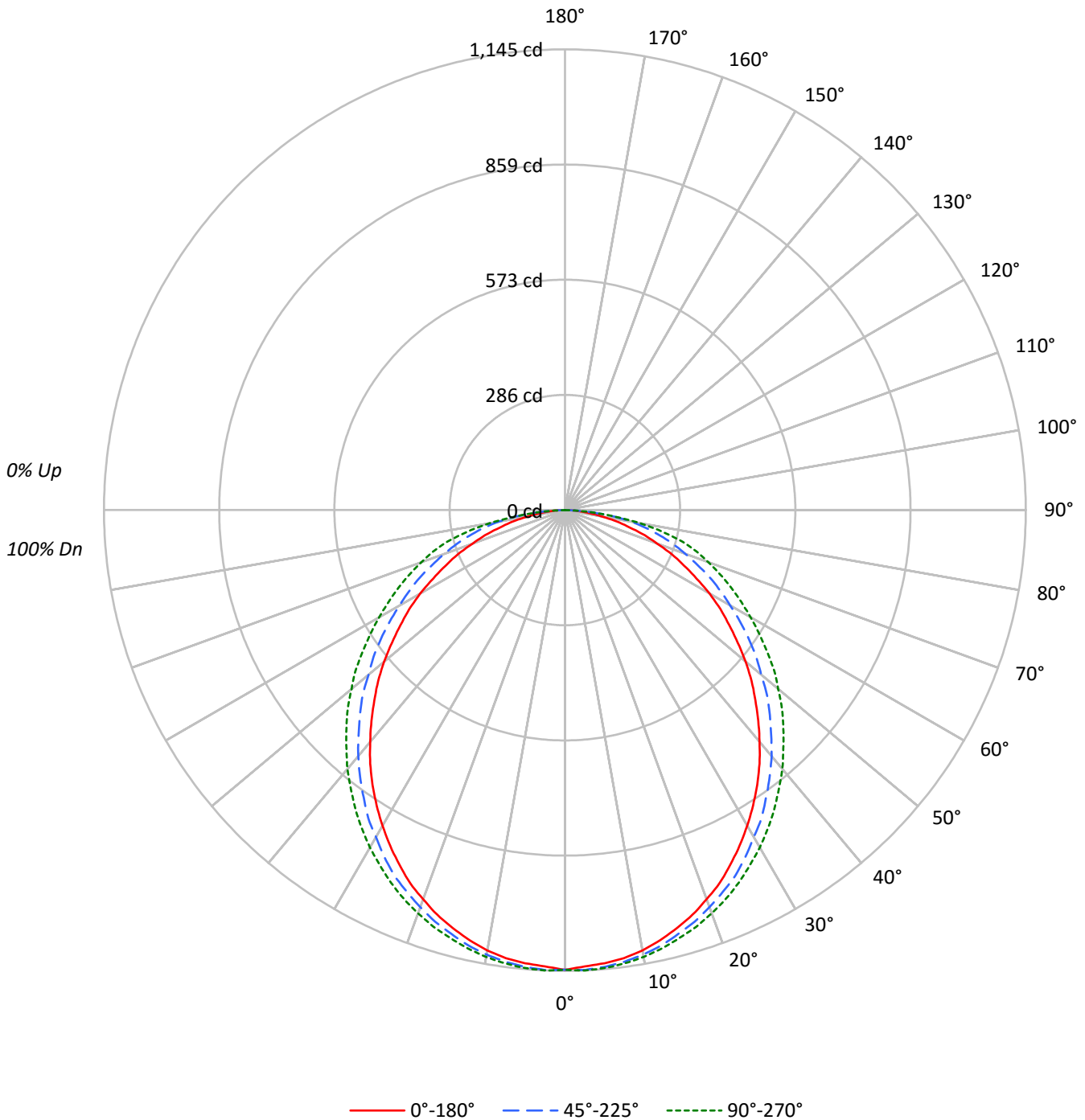
Lumens per Lamp: N/A  
Luminaire Lumens: 3188.0 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3074	3074	3074
5°	3054	3078	3086
10°	3036	3064	3081
15°	2996	3037	3066
20°	2948	3007	3054
25°	2888	2977	3034
30°	2815	2916	3009
35°	2736	2863	2981
40°	2644	2806	2952
45°	2547	2740	2921
50°	2454	2665	2896
55°	2338	2617	2875
60°	2234	2554	2866
65°	2083	2538	2898
70°	1919	2516	2984
75°	1732	2551	3140
80°	1499	2628	2951
85°	1241	2205	2205



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.0	3.4
10°-20°	307.4	9.6
20°-30°	460.0	14.4
30°-40°	544.8	17.1
40°-50°	555.2	17.4
50°-60°	497.6	15.6
60°-70°	389.6	12.2
70°-80°	251.2	7.9
80°-90°	74.2	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°	875.5	27.5
0°-40°	1420.2	44.5
0°-60°	2473.0	77.6
0°-90°	3188.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3188.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1142	1142	1142	1142	1142	
5°	1130	1133	1139	1141	1142	107
15°	1075	1081	1090	1099	1101	303
25°	973	982	1002	1016	1022	448
35°	833	843	872	898	907	521
45°	669	684	720	757	768	517
55°	498	515	558	596	613	447
65°	327	347	399	437	455	325
75°	167	192	245	287	302	179
85°	40	55	71	71	71	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1142.4	1142.4	1142.4	1142.4	1142.4
2.5°	1134.9	1137.9	1143.8	1145.3	1145.3
5°	1130.5	1133.4	1139.4	1140.9	1142.4
7.5°	1123.0	1124.5	1131.9	1134.9	1136.4
10°	1111.1	1114.1	1121.5	1126.0	1127.5
12.5°	1094.8	1099.2	1108.1	1114.1	1115.6
15°	1075.4	1081.4	1090.3	1099.2	1100.7
17.5°	1054.6	1060.6	1072.4	1082.9	1085.8
20°	1029.3	1036.8	1050.1	1062.0	1066.5
22.5°	1004.0	1010.0	1026.3	1041.2	1045.7
25°	972.8	981.7	1002.5	1015.9	1021.9
27.5°	940.1	950.5	971.3	989.2	995.1
30°	905.9	916.3	938.6	960.9	968.3
32.5°	870.2	882.1	908.8	931.1	938.6
35°	833.0	843.4	871.6	898.4	907.3
37.5°	794.3	803.2	835.9	864.2	873.1
40°	752.6	764.5	798.8	831.5	840.4
42.5°	711.0	724.4	758.6	794.3	803.2
45°	669.4	684.2	719.9	757.1	767.5
47.5°	629.2	641.1	681.3	716.9	731.8
50°	586.1	598.0	636.6	676.8	691.7
52.5°	541.4	557.8	599.4	638.1	656.0
55°	498.3	514.7	557.8	596.5	612.8
57.5°	458.1	471.5	516.1	556.3	572.7
60°	415.0	426.9	474.5	517.6	532.5
62.5°	368.9	386.7	435.8	476.0	493.8
65°	327.2	346.6	398.6	437.3	455.2
67.5°	288.6	306.4	357.0	398.6	418.0
70°	243.9	267.7	319.8	361.4	379.3
72.5°	208.2	229.1	282.6	324.3	343.6
75°	166.6	191.9	245.4	287.1	302.0
77.5°	132.4	157.7	208.2	241.0	248.4
80°	96.7	122.0	169.6	185.9	190.4
82.5°	65.4	89.2	122.0	126.4	127.9
85°	40.2	55.0	71.4	71.4	71.4
87.5°	19.3	22.3	25.3	23.8	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)