

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: P312885

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-CP250-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: P312885  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-44HE-UNV-L83050-CP250-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" 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**

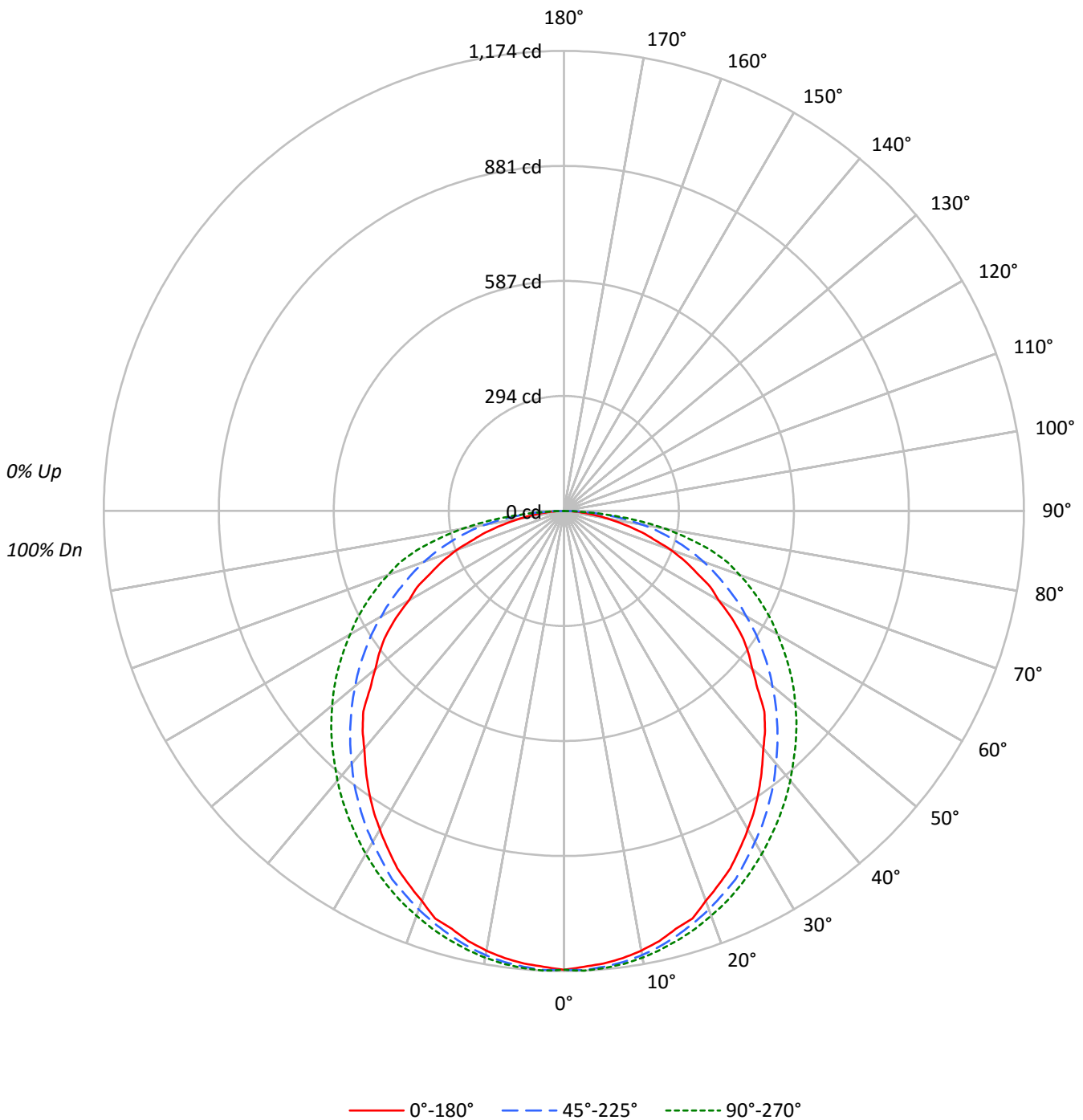
Lumens per Lamp: N/A  
Luminaire Lumens: 3490.0 lumens  
Efficiency: N/A  
Efficacy: 94.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	3151	3151	3151
5°	3131	3154	3163
10°	3113	3145	3163
15°	3076	3122	3155
20°	3033	3100	3147
25°	2986	3080	3144
30°	2917	3031	3140
35°	2853	2996	3144
40°	2781	2957	3157
45°	2753	2930	3185
50°	2629	2909	3231
55°	2602	2899	3299
60°	2454	2895	3389
65°	2383	2914	3542
70°	2286	2984	3758
75°	2084	3074	4047
80°	1787	3185	4090
85°	1445	3044	3507



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.8	3.2
10°-20°	316.1	9.1
20°-30°	475.7	13.6
30°-40°	571.0	16.4
40°-50°	596.8	17.1
50°-60°	556.1	15.9
60°-70°	456.1	13.1
70°-80°	307.3	8.8
80°-90°	100.1	2.9
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°	902.6	25.9
0°-40°	1473.5	42.2
0°-60°	2626.4	75.3
0°-90°	3490.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3490.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1171	1171	1171	1171	1171	
5°	1159	1163	1168	1169	1171	110
15°	1104	1111	1121	1131	1132	312
25°	1006	1012	1037	1052	1059	462
35°	869	880	912	944	957	543
45°	723	728	770	817	837	553
55°	555	565	618	676	703	491
65°	374	391	458	524	556	372
75°	200	222	296	362	389	211
85°	47	67	99	115	114	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1170.9	1170.9	1170.9	1170.9	1170.9
2.5°	1164.2	1167.6	1172.6	1174.3	1174.3
5°	1159.2	1162.6	1167.6	1169.3	1170.9
7.5°	1150.9	1154.2	1160.9	1164.2	1165.9
10°	1139.2	1142.5	1150.9	1155.9	1157.6
12.5°	1124.2	1127.5	1137.5	1144.2	1145.9
15°	1104.1	1110.8	1120.8	1130.8	1132.5
17.5°	1090.7	1089.1	1102.4	1114.1	1117.5
20°	1059.0	1067.4	1082.4	1095.8	1099.1
22.5°	1032.3	1039.0	1059.0	1074.0	1080.7
25°	1005.6	1012.2	1037.3	1052.3	1059.0
27.5°	972.2	982.2	1005.6	1027.3	1035.6
30°	938.7	948.8	975.5	1000.5	1010.6
32.5°	905.3	917.0	945.4	972.2	983.8
35°	868.6	880.3	912.0	943.8	957.1
37.5°	830.2	845.2	878.6	913.7	928.7
40°	791.8	806.8	841.9	882.0	898.7
42.5°	760.0	766.7	806.8	850.2	866.9
45°	723.3	728.3	770.0	816.8	836.9
47.5°	669.8	688.2	733.3	785.1	805.1
50°	628.1	648.1	694.9	750.0	771.7
52.5°	593.0	606.3	658.1	713.2	738.3
55°	554.6	564.6	618.0	676.5	703.2
57.5°	507.8	526.2	579.6	639.7	666.5
60°	456.0	479.4	537.9	603.0	629.7
62.5°	422.6	436.0	499.4	564.6	594.6
65°	374.2	390.9	457.7	524.5	556.2
67.5°	334.1	350.8	419.3	486.1	517.8
70°	290.6	307.3	379.2	446.0	477.7
72.5°	240.5	263.9	339.1	405.9	439.3
75°	200.4	222.2	295.7	362.5	389.2
77.5°	155.3	183.7	252.2	307.3	327.4
80°	115.3	143.7	205.5	245.5	263.9
82.5°	78.5	106.9	153.7	183.7	193.8
85°	46.8	66.8	98.6	115.3	113.6
87.5°	21.7	28.4	40.1	40.1	38.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)