

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: P308822

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP250-W2A-U-5500K**

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: P308822  
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: 22FCZ2-39HE-UNV-L82765-CP250-W2A-U-5500K  
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**

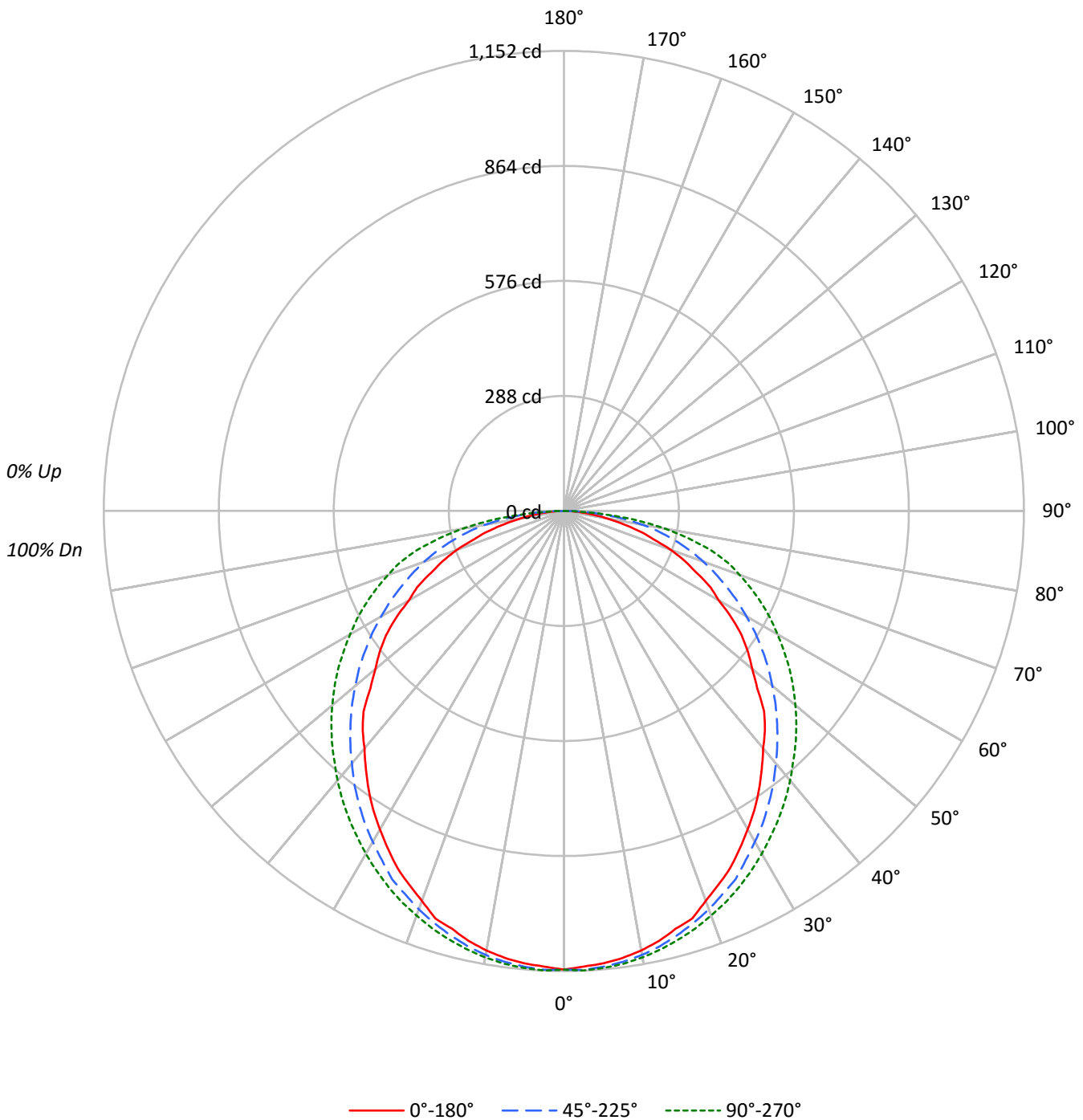
Lumens per Lamp: N/A  
Luminaire Lumens: 3423.0 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3090	3090	3090
5°	3071	3093	3102
10°	3053	3084	3102
15°	3017	3063	3095
20°	2975	3040	3087
25°	2928	3021	3084
30°	2861	2973	3080
35°	2799	2939	3084
40°	2728	2901	3096
45°	2700	2874	3124
50°	2579	2853	3169
55°	2552	2844	3236
60°	2407	2839	3324
65°	2337	2858	3474
70°	2243	2926	3687
75°	2044	3015	3969
80°	1751	3123	4012
85°	1417	2986	3440



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.7	3.2
10°-20°	310.0	9.1
20°-30°	466.6	13.6
30°-40°	560.0	16.4
40°-50°	585.3	17.1
50°-60°	545.5	15.9
60°-70°	447.4	13.1
70°-80°	301.5	8.8
80°-90°	98.2	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°	885.3	25.9
0°-40°	1445.2	42.2
0°-60°	2576.0	75.3
0°-90°	3423.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3423.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1148	1148	1148	1148	1148	
5°	1137	1140	1145	1147	1148	108
15°	1083	1090	1099	1109	1111	306
25°	986	993	1017	1032	1039	453
35°	852	863	894	926	939	533
45°	709	714	755	801	821	542
55°	544	554	606	664	690	482
65°	367	383	449	514	546	365
75°	197	218	290	356	382	207
85°	46	66	97	113	111	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1148.4	1148.4	1148.4	1148.4	1148.4
2.5°	1141.9	1145.2	1150.1	1151.7	1151.7
5°	1137.0	1140.3	1145.2	1146.8	1148.4
7.5°	1128.8	1132.1	1138.6	1141.9	1143.5
10°	1117.3	1120.6	1128.8	1133.7	1135.3
12.5°	1102.6	1105.8	1115.7	1122.2	1123.9
15°	1082.9	1089.5	1099.3	1109.1	1110.8
17.5°	1069.8	1068.2	1081.3	1092.7	1096.0
20°	1038.7	1046.9	1061.6	1074.7	1078.0
22.5°	1012.5	1019.0	1038.7	1053.4	1060.0
25°	986.3	992.8	1017.4	1032.1	1038.7
27.5°	953.5	963.3	986.3	1007.6	1015.7
30°	920.7	930.6	956.8	981.3	991.2
32.5°	888.0	899.4	927.3	953.5	965.0
35°	851.9	863.4	894.5	925.6	938.7
37.5°	814.2	829.0	861.7	896.1	910.9
40°	776.6	791.3	825.7	865.0	881.4
42.5°	745.4	752.0	791.3	833.9	850.3
45°	709.4	714.3	755.3	801.1	820.8
47.5°	657.0	675.0	719.2	770.0	789.7
50°	616.0	635.7	681.5	735.6	756.9
52.5°	581.6	594.7	645.5	699.6	724.1
55°	543.9	553.7	606.2	663.5	689.7
57.5°	498.0	516.1	568.5	627.5	653.7
60°	447.3	470.2	527.5	591.4	617.6
62.5°	414.5	427.6	489.9	553.7	583.2
65°	367.0	383.4	448.9	514.4	545.6
67.5°	327.7	344.0	411.2	476.7	507.9
70°	285.1	301.4	371.9	437.4	468.6
72.5°	235.9	258.9	332.6	398.1	430.9
75°	196.6	217.9	290.0	355.5	381.7
77.5°	152.4	180.2	247.4	301.4	321.1
80°	113.0	140.9	201.5	240.8	258.9
82.5°	77.0	104.9	150.7	180.2	190.0
85°	45.9	65.5	96.7	113.0	111.4
87.5°	21.3	27.9	39.3	39.3	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)