

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: P312861

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-CP250-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: P312861  
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-L83050-CP250-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET  
Light Source: (168) 3500K 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**

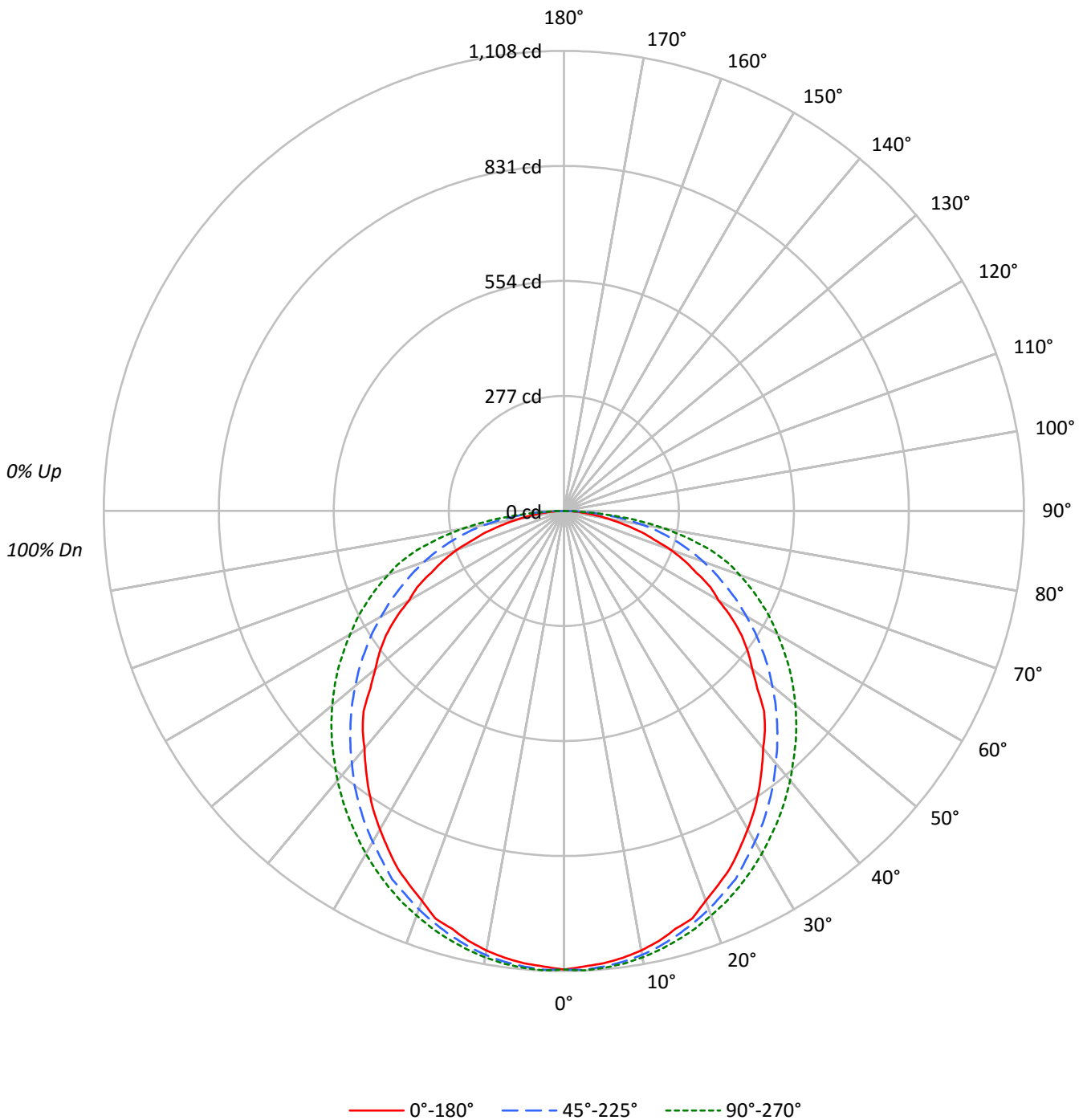
Lumens per Lamp: N/A  
Luminaire Lumens: 3292.0 lumens  
Efficiency: N/A  
Efficacy: 101.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P312861

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CP250-W2A-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P312861

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CP250-W2A-U-3500K

**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°	2972	2972	2972
5°	2954	2975	2984
10°	2936	2966	2984
15°	2902	2945	2976
20°	2861	2924	2969
25°	2816	2905	2966
30°	2751	2859	2962
35°	2691	2826	2966
40°	2623	2790	2978
45°	2596	2764	3004
50°	2480	2744	3047
55°	2454	2735	3112
60°	2315	2730	3197
65°	2247	2749	3341
70°	2157	2814	3545
75°	1966	2900	3817
80°	1684	3003	3857
85°	1362	2871	3307



TEST NUMBER: P312861

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CP250-W2A-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.5	3.2
10°-20°	298.1	9.1
20°-30°	448.7	13.6
30°-40°	538.6	16.4
40°-50°	562.9	17.1
50°-60°	524.6	15.9
60°-70°	430.2	13.1
70°-80°	289.9	8.8
80°-90°	94.4	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°	851.4	25.9
0°-40°	1389.9	42.2
0°-60°	2477.4	75.3
0°-90°	3292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3292.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1094	1097	1101	1103	1104	104
15°	1042	1048	1057	1067	1068	294
25°	948	955	978	993	999	436
35°	819	830	860	890	903	512
45°	682	687	726	770	789	521
55°	523	533	583	638	663	463
65°	353	369	432	495	525	351
75°	189	210	279	342	367	199
85°	44	63	93	109	107	53
90°	0	0	0	0	0	



TEST NUMBER: P312861

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CP250-W2A-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1104.5	1104.5	1104.5	1104.5	1104.5
2.5°	1098.2	1101.3	1106.1	1107.6	1107.6
5°	1093.5	1096.6	1101.3	1102.9	1104.5
7.5°	1085.6	1088.7	1095.0	1098.2	1099.8
10°	1074.6	1077.7	1085.6	1090.3	1091.9
12.5°	1060.4	1063.5	1073.0	1079.3	1080.9
15°	1041.5	1047.8	1057.2	1066.7	1068.3
17.5°	1028.9	1027.3	1039.9	1050.9	1054.1
20°	998.9	1006.8	1021.0	1033.6	1036.7
22.5°	973.7	980.0	998.9	1013.1	1019.4
25°	948.5	954.8	978.4	992.6	998.9
27.5°	917.0	926.5	948.5	969.0	976.9
30°	885.5	894.9	920.1	943.8	953.2
32.5°	854.0	865.0	891.8	917.0	928.0
35°	819.3	830.3	860.3	890.2	902.8
37.5°	783.1	797.3	828.8	861.9	876.0
40°	746.8	761.0	794.1	831.9	847.7
42.5°	716.9	723.2	761.0	802.0	817.7
45°	682.2	687.0	726.4	770.5	789.4
47.5°	631.8	649.1	691.7	740.5	759.4
50°	592.4	611.3	655.4	707.4	727.9
52.5°	559.3	571.9	620.8	672.8	696.4
55°	523.1	532.6	583.0	638.1	663.3
57.5°	479.0	496.3	546.7	603.5	628.7
60°	430.1	452.2	507.3	568.8	594.0
62.5°	398.6	411.2	471.1	532.6	560.9
65°	352.9	368.7	431.7	494.7	524.7
67.5°	315.1	330.9	395.5	458.5	488.4
70°	274.2	289.9	357.7	420.7	450.6
72.5°	226.9	248.9	319.8	382.9	414.4
75°	189.1	209.6	278.9	341.9	367.1
77.5°	146.5	173.3	237.9	289.9	308.8
80°	108.7	135.5	193.8	231.6	248.9
82.5°	74.1	100.8	145.0	173.3	182.8
85°	44.1	63.0	93.0	108.7	107.1
87.5°	20.5	26.8	37.8	37.8	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)