

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: P312572

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-HRP-CA125-W2A-U-4000K**

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: P312572
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 3352.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

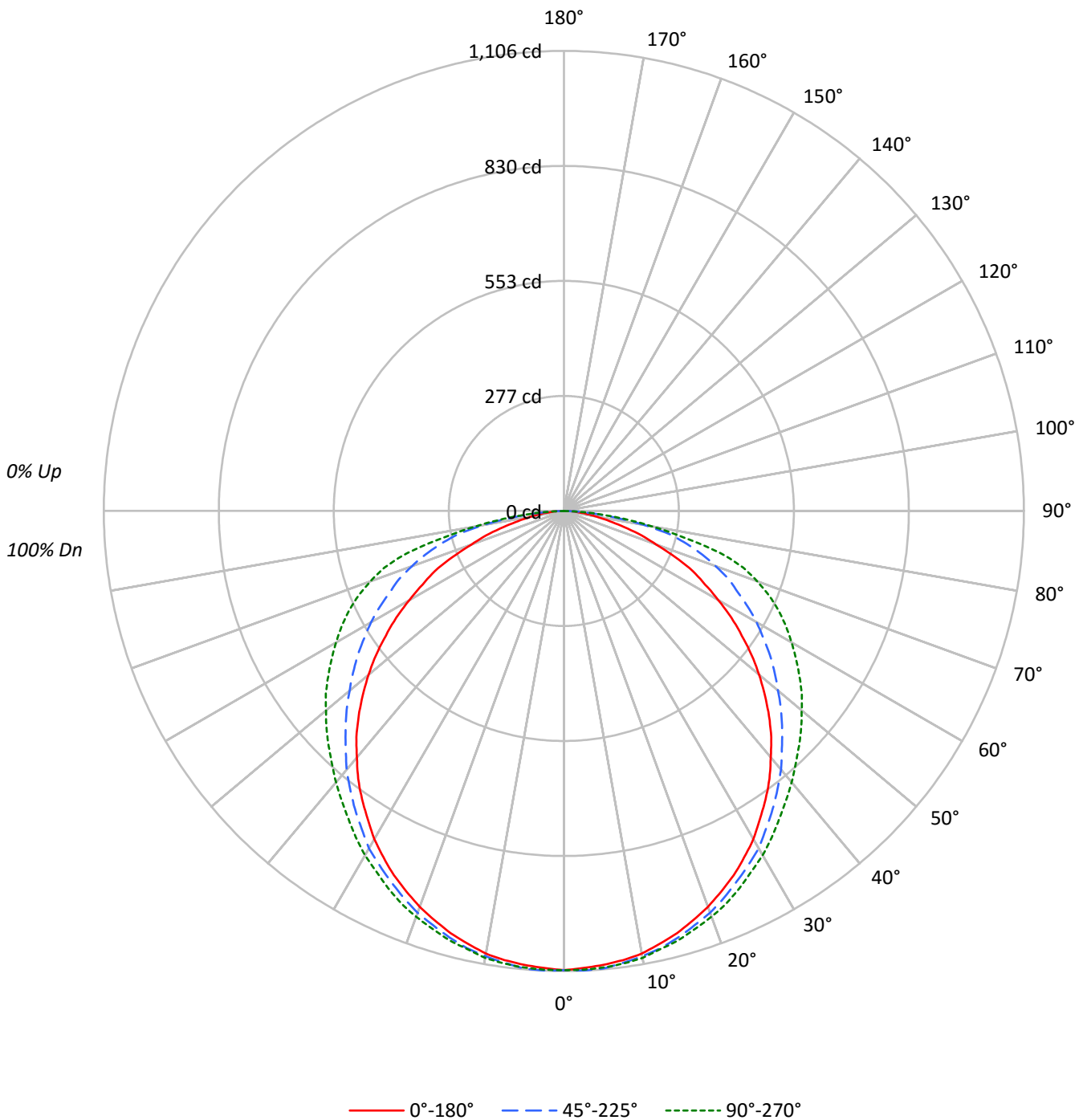
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2970	2970	2970
5°	2959	2982	2976
10°	2952	2970	2981
15°	2928	2957	2975
20°	2901	2943	2973
25°	2869	2919	2970
30°	2832	2911	2970
35°	2779	2876	2966
40°	2719	2852	2993
45°	2656	2825	3042
50°	2567	2815	3125
55°	2450	2837	3244
60°	2310	2879	3402
65°	2181	2935	3635
70°	1863	3061	3893
75°	1561	3188	4046
80°	1278	3081	3375
85°	1108	2285	2482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	3.1
10°-20°	299.2	8.9
20°-30°	453.5	13.5
30°-40°	547.6	16.3
40°-50°	575.4	17.2
50°-60°	541.4	16.2
60°-70°	451.4	13.5
70°-80°	299.1	8.9
80°-90°	79.7	2.4
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°	857.4	25.6
0°-40°	1405.0	41.9
0°-60°	2521.8	75.2
0°-90°	3352.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3352.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1095	1097	1104	1104	1102	104
15°	1051	1055	1062	1066	1068	296
25°	966	973	983	996	1000	445
35°	846	854	875	894	903	529
45°	698	708	742	780	799	537
55°	522	546	605	666	691	467
65°	343	372	461	537	571	333
75°	150	209	307	370	389	163
85°	36	55	74	80	80	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1103.8	1103.8	1103.8	1103.8	1103.8
2.5°	1099.5	1101.7	1105.9	1105.9	1103.8
5°	1095.3	1097.4	1103.8	1103.8	1101.7
7.5°	1089.0	1091.1	1095.3	1099.5	1097.4
10°	1080.5	1082.6	1086.9	1091.1	1091.1
12.5°	1065.7	1067.8	1076.3	1078.4	1078.4
15°	1050.9	1055.1	1061.5	1065.7	1067.8
17.5°	1031.9	1036.1	1044.6	1053.0	1053.0
20°	1012.9	1017.1	1027.7	1036.1	1038.2
22.5°	989.6	995.9	1006.5	1017.1	1021.3
25°	966.3	972.7	983.2	995.9	1000.2
27.5°	938.8	945.2	960.0	974.8	976.9
30°	911.4	917.7	936.7	949.4	955.8
32.5°	877.5	886.0	905.0	924.0	930.4
35°	845.8	854.3	875.4	894.4	902.9
37.5°	812.0	820.4	843.7	867.0	877.5
40°	773.9	784.5	812.0	837.3	852.1
42.5°	738.0	748.5	776.0	809.9	824.7
45°	697.8	708.4	742.2	780.3	799.3
47.5°	655.5	668.2	708.4	754.9	773.9
50°	613.2	628.0	672.4	725.3	746.4
52.5°	568.8	587.8	638.6	695.7	721.0
55°	522.3	545.5	604.8	666.1	691.4
57.5°	477.9	499.0	568.8	634.4	661.8
60°	429.2	456.7	535.0	602.6	632.2
62.5°	382.7	412.3	499.0	570.9	602.6
65°	342.6	372.2	461.0	537.1	570.9
67.5°	289.7	329.9	429.2	501.1	535.0
70°	236.8	291.8	389.1	463.1	494.8
72.5°	196.6	249.5	348.9	422.9	452.5
75°	150.1	209.3	306.6	370.0	389.1
77.5°	112.1	173.4	262.2	293.9	296.0
80°	82.5	133.2	198.8	209.3	217.8
82.5°	57.1	93.0	129.0	141.7	145.9
85°	35.9	55.0	74.0	80.4	80.4
87.5°	19.0	21.1	25.4	25.4	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)