

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: P312566

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-HRP-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: P312566
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-CA08-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 3204.0 lumens
Efficiency: N/A
Efficacy: 86.1 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

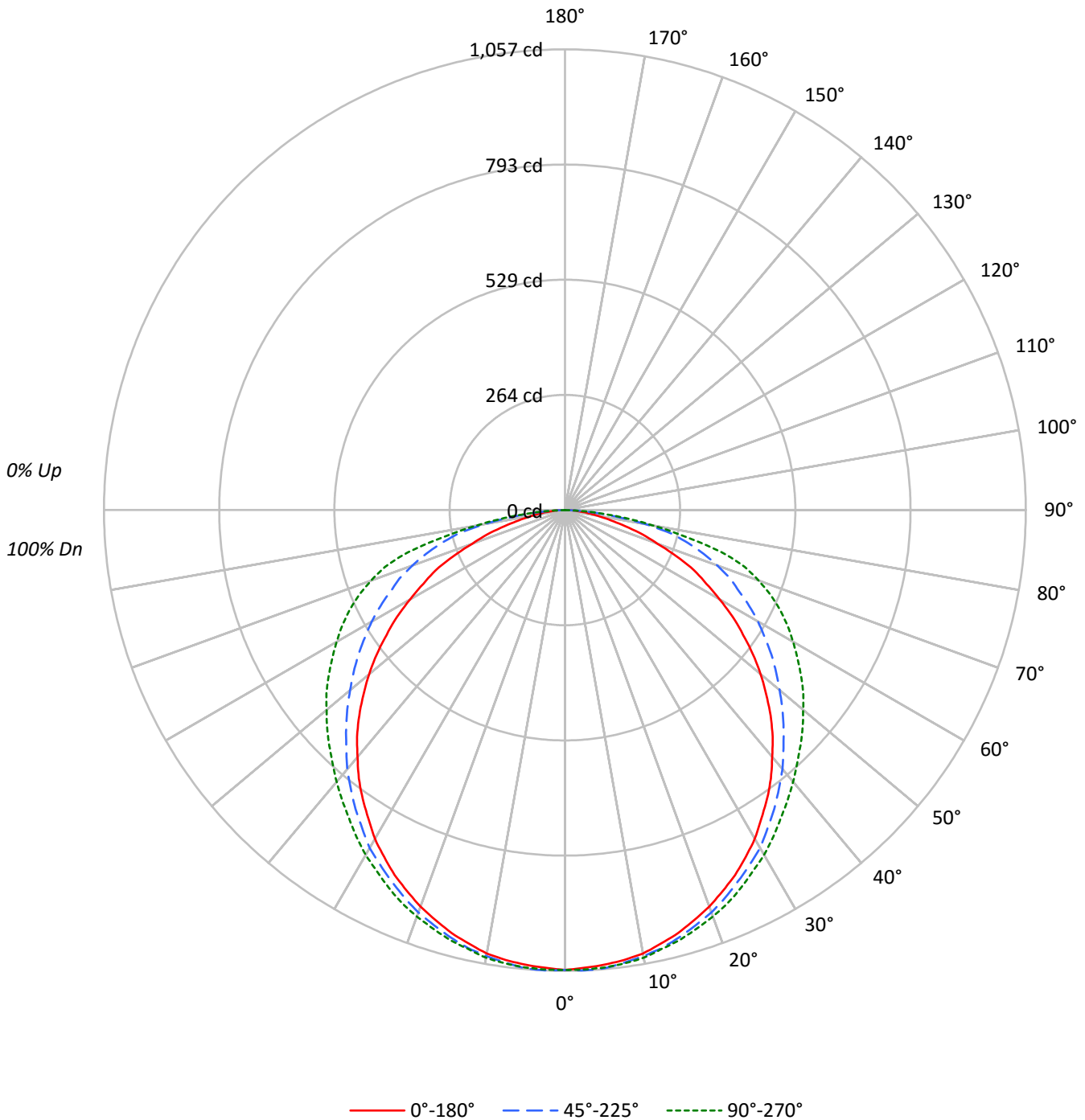
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2839	2839	2839
5°	2828	2850	2844
10°	2822	2839	2850
15°	2798	2827	2844
20°	2772	2813	2842
25°	2743	2790	2839
30°	2707	2782	2839
35°	2656	2749	2835
40°	2598	2726	2861
45°	2538	2700	2907
50°	2454	2691	2987
55°	2342	2712	3101
60°	2208	2752	3252
65°	2085	2805	3475
70°	1781	2926	3721
75°	1492	3047	3867
80°	1221	2944	3226
85°	1062	2183	2371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.0	3.1
10°-20°	286.0	8.9
20°-30°	433.5	13.5
30°-40°	523.4	16.3
40°-50°	550.0	17.2
50°-60°	517.5	16.2
60°-70°	431.5	13.5
70°-80°	285.9	8.9
80°-90°	76.2	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°	819.5	25.6
0°-40°	1342.9	41.9
0°-60°	2410.4	75.2
0°-90°	3204.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3204.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1055	1055	1055	1055	1055	
5°	1047	1049	1055	1055	1053	99
15°	1004	1009	1015	1019	1021	283
25°	924	930	940	952	956	425
35°	808	816	837	855	863	506
45°	667	677	709	746	764	514
55°	499	522	578	637	661	447
65°	327	356	441	513	546	319
75°	144	200	293	354	372	156
85°	34	52	71	77	77	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1055.0	1055.0	1055.0	1055.0	1055.0
2.5°	1051.0	1053.0	1057.1	1057.1	1055.0
5°	1047.0	1049.0	1055.0	1055.0	1053.0
7.5°	1040.9	1042.9	1047.0	1051.0	1049.0
10°	1032.8	1034.8	1038.9	1042.9	1042.9
12.5°	1018.7	1020.7	1028.8	1030.8	1030.8
15°	1004.5	1008.6	1014.6	1018.7	1020.7
17.5°	986.3	990.4	998.4	1006.5	1006.5
20°	968.1	972.2	982.3	990.4	992.4
22.5°	945.9	952.0	962.1	972.2	976.2
25°	923.7	929.7	939.8	952.0	956.0
27.5°	897.4	903.5	917.6	931.8	933.8
30°	871.1	877.2	895.4	907.5	913.6
32.5°	838.8	846.9	865.1	883.2	889.3
35°	808.5	816.5	836.8	854.9	863.0
37.5°	776.1	784.2	806.4	828.7	838.8
40°	739.7	749.8	776.1	800.4	814.5
42.5°	705.4	715.5	741.8	774.1	788.2
45°	667.0	677.1	709.4	745.8	764.0
47.5°	626.6	638.7	677.1	721.6	739.7
50°	586.1	600.3	642.7	693.3	713.5
52.5°	543.7	561.9	610.4	665.0	689.2
55°	499.2	521.5	578.0	636.7	660.9
57.5°	456.8	477.0	543.7	606.3	632.6
60°	410.3	436.6	511.4	576.0	604.3
62.5°	365.8	394.1	477.0	545.7	576.0
65°	327.4	355.7	440.6	513.4	545.7
67.5°	276.9	315.3	410.3	479.0	511.4
70°	226.4	278.9	371.9	442.6	472.9
72.5°	188.0	238.5	333.5	404.2	432.5
75°	143.5	200.1	293.1	353.7	371.9
77.5°	107.1	165.7	250.6	280.9	283.0
80°	78.8	127.3	190.0	200.1	208.2
82.5°	54.6	88.9	123.3	135.4	139.5
85°	34.4	52.5	70.7	76.8	76.8
87.5°	18.2	20.2	24.3	24.3	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)