

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: P308290

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CA08-W2A-U-5000K**

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: P308290
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-L82765-HRP-CA08-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 3183.0 lumens
Efficiency: N/A
Efficacy: 83.5 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

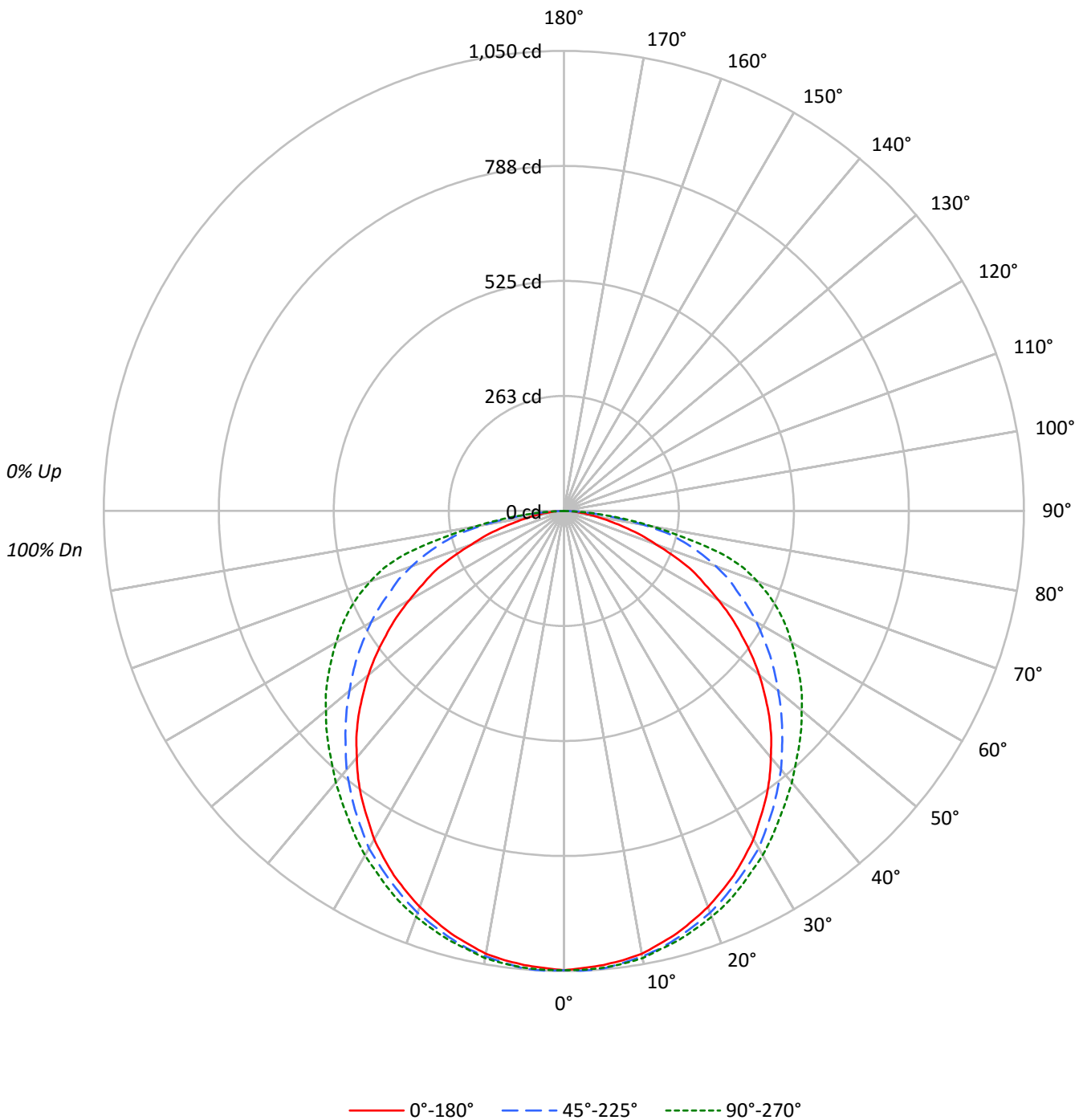
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2820	2820	2820
5°	2810	2831	2826
10°	2804	2820	2831
15°	2780	2808	2825
20°	2754	2794	2823
25°	2725	2772	2820
30°	2689	2764	2820
35°	2639	2731	2817
40°	2582	2708	2843
45°	2522	2682	2888
50°	2438	2673	2967
55°	2327	2694	3080
60°	2194	2734	3231
65°	2071	2787	3452
70°	1769	2907	3696
75°	1483	3027	3842
80°	1213	2924	3205
85°	1053	2171	2356



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	3.1
10°-20°	284.2	8.9
20°-30°	430.6	13.5
30°-40°	520.0	16.3
40°-50°	546.4	17.2
50°-60°	514.1	16.2
60°-70°	428.7	13.5
70°-80°	284.0	8.9
80°-90°	75.7	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°	814.1	25.6
0°-40°	1334.1	41.9
0°-60°	2394.6	75.2
0°-90°	3183.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3183.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1040	1042	1048	1048	1046	99
15°	998	1002	1008	1012	1014	281
25°	918	924	934	946	950	422
35°	803	811	831	849	857	502
45°	663	673	705	741	759	510
55°	496	518	574	632	657	444
65°	325	353	438	510	542	317
75°	143	199	291	351	370	155
85°	34	52	70	76	76	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1048.1	1048.1	1048.1	1048.1	1048.1
2.5°	1044.1	1046.1	1050.1	1050.1	1048.1
5°	1040.1	1042.1	1048.1	1048.1	1046.1
7.5°	1034.1	1036.1	1040.1	1044.1	1042.1
10°	1026.0	1028.0	1032.1	1036.1	1036.1
12.5°	1012.0	1014.0	1022.0	1024.0	1024.0
15°	997.9	1001.9	1008.0	1012.0	1014.0
17.5°	979.9	983.9	991.9	999.9	999.9
20°	961.8	965.8	975.8	983.9	985.9
22.5°	939.7	945.7	955.8	965.8	969.8
25°	917.6	923.6	933.7	945.7	949.7
27.5°	891.5	897.5	911.6	925.6	927.7
30°	865.4	871.4	889.5	901.5	907.6
32.5°	833.3	841.3	859.4	877.5	883.5
35°	803.2	811.2	831.3	849.3	857.4
37.5°	771.0	779.1	801.2	823.2	833.3
40°	734.9	744.9	771.0	795.1	809.2
42.5°	700.8	710.8	736.9	769.0	783.1
45°	662.6	672.6	704.8	740.9	759.0
47.5°	622.5	634.5	672.6	716.8	734.9
50°	582.3	596.3	638.5	688.7	708.8
52.5°	540.1	558.2	606.4	660.6	684.7
55°	496.0	518.0	574.3	632.5	656.6
57.5°	453.8	473.9	540.1	602.4	628.5
60°	407.6	433.7	508.0	572.3	600.4
62.5°	363.4	391.5	473.9	542.1	572.3
65°	325.3	353.4	437.7	510.0	542.1
67.5°	275.1	313.2	407.6	475.9	508.0
70°	224.9	277.1	369.5	439.7	469.8
72.5°	186.7	236.9	331.3	401.6	429.7
75°	142.6	198.8	291.1	351.4	369.5
77.5°	106.4	164.6	249.0	279.1	281.1
80°	78.3	126.5	188.7	198.8	206.8
82.5°	54.2	88.3	122.5	134.5	138.5
85°	34.1	52.2	70.3	76.3	76.3
87.5°	18.1	20.1	24.1	24.1	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)