

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: P308327

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-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: P308327
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-CP250-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2983.0 lumens
Efficiency: N/A
Efficacy: 78.1 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

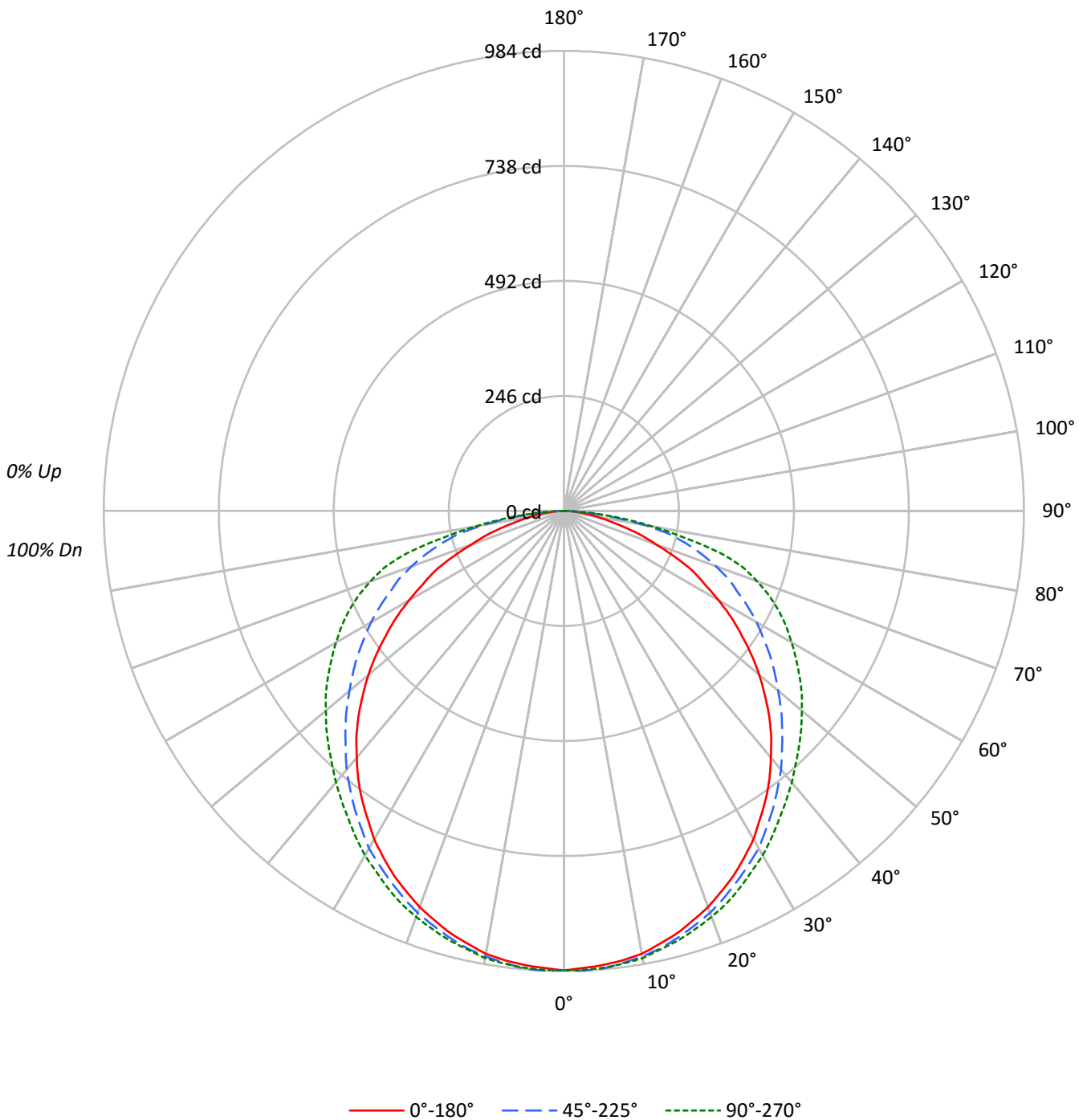
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2643	2643	2643
5°	2633	2653	2648
10°	2628	2643	2653
15°	2605	2632	2647
20°	2581	2619	2646
25°	2553	2598	2643
30°	2520	2590	2643
35°	2473	2559	2640
40°	2419	2538	2664
45°	2363	2514	2707
50°	2285	2505	2781
55°	2181	2525	2887
60°	2056	2562	3028
65°	1941	2612	3235
70°	1659	2724	3464
75°	1389	2837	3599
80°	1137	2741	3003
85°	988	2035	2208



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.1	3.1
10°-20°	266.3	8.9
20°-30°	403.6	13.5
30°-40°	487.3	16.3
40°-50°	512.1	17.2
50°-60°	481.8	16.2
60°-70°	401.7	13.5
70°-80°	266.2	8.9
80°-90°	70.9	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°	763.0	25.6
0°-40°	1250.3	41.9
0°-60°	2244.2	75.2
0°-90°	2983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2983.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	975	977	982	982	980	93
15°	935	939	945	948	950	264
25°	860	866	875	886	890	396
35°	753	760	779	796	804	471
45°	621	630	660	694	711	478
55°	465	486	538	593	615	416
65°	305	331	410	478	508	297
75°	134	186	273	329	346	145
85°	32	49	66	72	72	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	982.3	982.3	982.3	982.3	982.3
2.5°	978.5	980.4	984.2	984.2	982.3
5°	974.7	976.6	982.3	982.3	980.4
7.5°	969.1	971.0	974.7	978.5	976.6
10°	961.6	963.5	967.2	971.0	971.0
12.5°	948.4	950.3	957.8	959.7	959.7
15°	935.2	939.0	944.6	948.4	950.3
17.5°	918.3	922.1	929.6	937.1	937.1
20°	901.4	905.1	914.5	922.1	923.9
22.5°	880.7	886.3	895.7	905.1	908.9
25°	860.0	865.6	875.0	886.3	890.1
27.5°	835.5	841.1	854.3	867.5	869.4
30°	811.0	816.7	833.6	844.9	850.5
32.5°	780.9	788.4	805.4	822.3	828.0
35°	752.7	760.2	779.0	796.0	803.5
37.5°	722.6	730.1	750.8	771.5	780.9
40°	688.7	698.1	722.6	745.2	758.3
42.5°	656.7	666.1	690.6	720.7	733.9
45°	621.0	630.4	660.5	694.4	711.3
47.5°	583.3	594.6	630.4	671.8	688.7
50°	545.7	558.9	598.4	645.4	664.3
52.5°	506.2	523.1	568.3	619.1	641.7
55°	464.8	485.5	538.2	592.7	615.3
57.5°	425.3	444.1	506.2	564.5	589.0
60°	382.0	406.5	476.1	536.3	562.6
62.5°	340.6	366.9	444.1	508.1	536.3
65°	304.8	331.2	410.2	478.0	508.1
67.5°	257.8	293.6	382.0	446.0	476.1
70°	210.8	259.7	346.2	412.1	440.3
72.5°	175.0	222.0	310.5	376.3	402.7
75°	133.6	186.3	272.9	329.3	346.2
77.5°	99.7	154.3	233.3	261.6	263.4
80°	73.4	118.5	176.9	186.3	193.8
82.5°	50.8	82.8	114.8	126.1	129.8
85°	32.0	48.9	65.9	71.5	71.5
87.5°	16.9	18.8	22.6	22.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)