

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: P308325

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP250-W2A-U-4500K**

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: P308325
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-4500K
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: 2914.0 lumens
Efficiency: N/A
Efficacy: 76.9 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

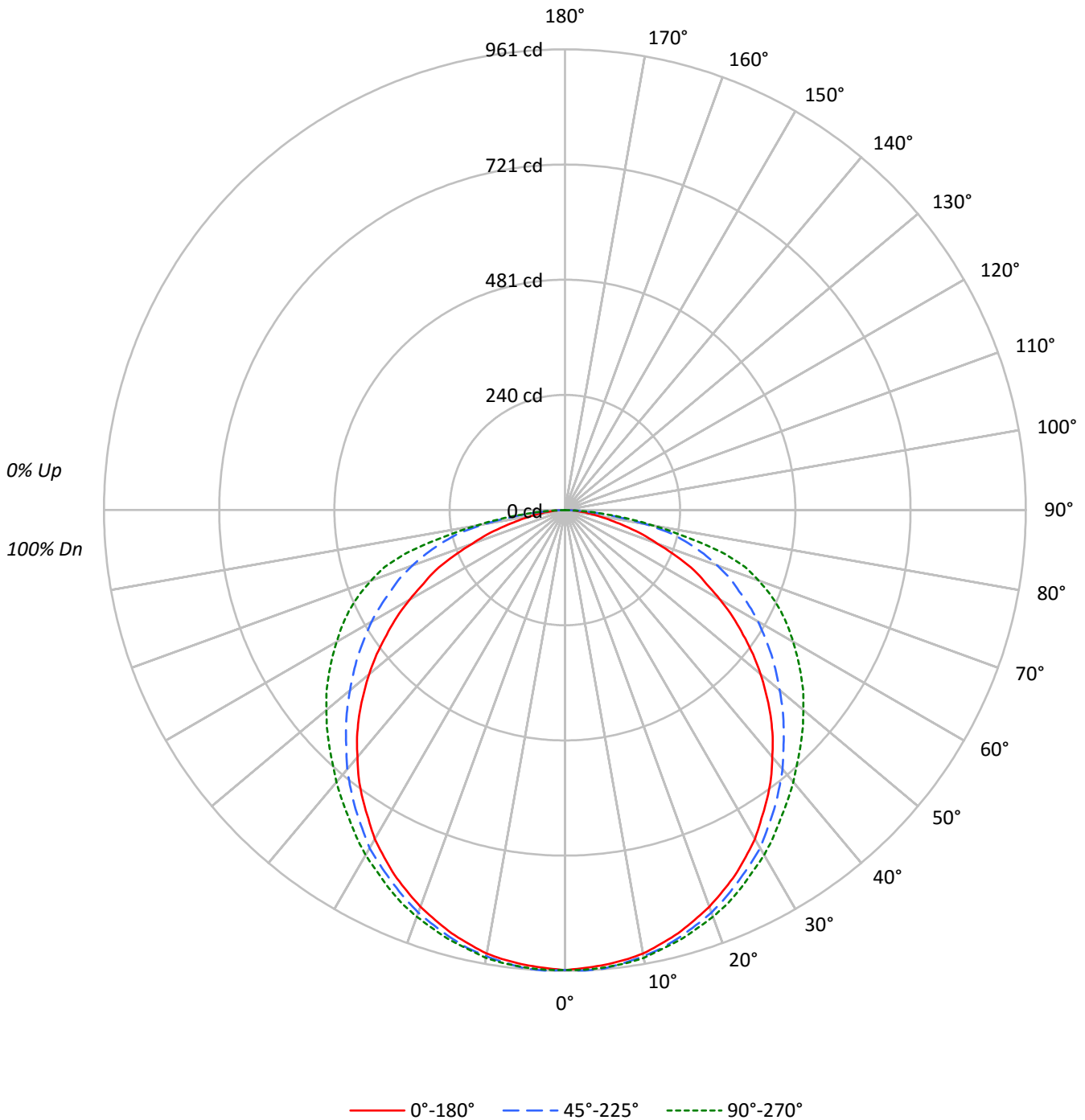
Input Watts (W): 37.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2582	2582	2582
5°	2572	2592	2587
10°	2567	2582	2592
15°	2545	2571	2586
20°	2521	2558	2585
25°	2494	2538	2582
30°	2462	2530	2582
35°	2416	2500	2578
40°	2363	2480	2602
45°	2308	2455	2644
50°	2232	2447	2717
55°	2130	2466	2820
60°	2009	2503	2958
65°	1896	2551	3160
70°	1620	2661	3384
75°	1357	2771	3516
80°	1111	2678	2934
85°	963	1985	2158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	3.1
10°-20°	260.1	8.9
20°-30°	394.3	13.5
30°-40°	476.1	16.3
40°-50°	500.2	17.2
50°-60°	470.7	16.2
60°-70°	392.4	13.5
70°-80°	260.0	8.9
80°-90°	69.3	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°	745.3	25.6
0°-40°	1221.4	41.9
0°-60°	2192.2	75.2
0°-90°	2914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	952	954	960	960	958	90
15°	914	917	923	926	928	258
25°	840	846	855	866	870	387
35°	735	743	761	778	785	460
45°	607	616	645	678	695	467
55°	454	474	526	579	601	406
65°	298	324	401	467	496	290
75°	130	182	266	322	338	142
85°	31	48	64	70	70	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	959.5	959.5	959.5	959.5	959.5
2.5°	955.9	957.7	961.4	961.4	959.5
5°	952.2	954.0	959.5	959.5	957.7
7.5°	946.7	948.5	952.2	955.9	954.0
10°	939.3	941.2	944.8	948.5	948.5
12.5°	926.5	928.3	935.7	937.5	937.5
15°	913.6	917.3	922.8	926.5	928.3
17.5°	897.0	900.7	908.1	915.4	915.4
20°	880.5	884.2	893.4	900.7	902.6
22.5°	860.3	865.8	875.0	884.2	887.9
25°	840.1	845.6	854.8	865.8	869.5
27.5°	816.2	821.7	834.5	847.4	849.3
30°	792.3	797.8	814.3	825.4	830.9
32.5°	762.9	770.2	786.8	803.3	808.8
35°	735.3	742.6	761.0	777.6	784.9
37.5°	705.9	713.2	733.4	753.7	762.9
40°	672.8	682.0	705.9	727.9	740.8
42.5°	641.5	650.7	674.6	704.0	716.9
45°	606.6	615.8	645.2	678.3	694.8
47.5°	569.8	580.9	615.8	656.2	672.8
50°	533.1	545.9	584.6	630.5	648.9
52.5°	494.5	511.0	555.1	604.8	626.8
55°	454.0	474.3	525.7	579.0	601.1
57.5°	415.4	433.8	494.5	551.5	575.4
60°	373.2	397.1	465.1	523.9	549.6
62.5°	332.7	358.5	433.8	496.3	523.9
65°	297.8	323.5	400.7	466.9	496.3
67.5°	251.8	286.8	373.2	435.7	465.1
70°	205.9	253.7	338.2	402.6	430.1
72.5°	171.0	216.9	303.3	367.6	393.4
75°	130.5	182.0	266.5	321.7	338.2
77.5°	97.4	150.7	227.9	255.5	257.3
80°	71.7	115.8	172.8	182.0	189.3
82.5°	49.6	80.9	112.1	123.2	126.8
85°	31.2	47.8	64.3	69.9	69.9
87.5°	16.5	18.4	22.1	22.1	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)