

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: P308326

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP250-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: P308326
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-5000K
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: 2954.0 lumens
Efficiency: N/A
Efficacy: 77.5 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

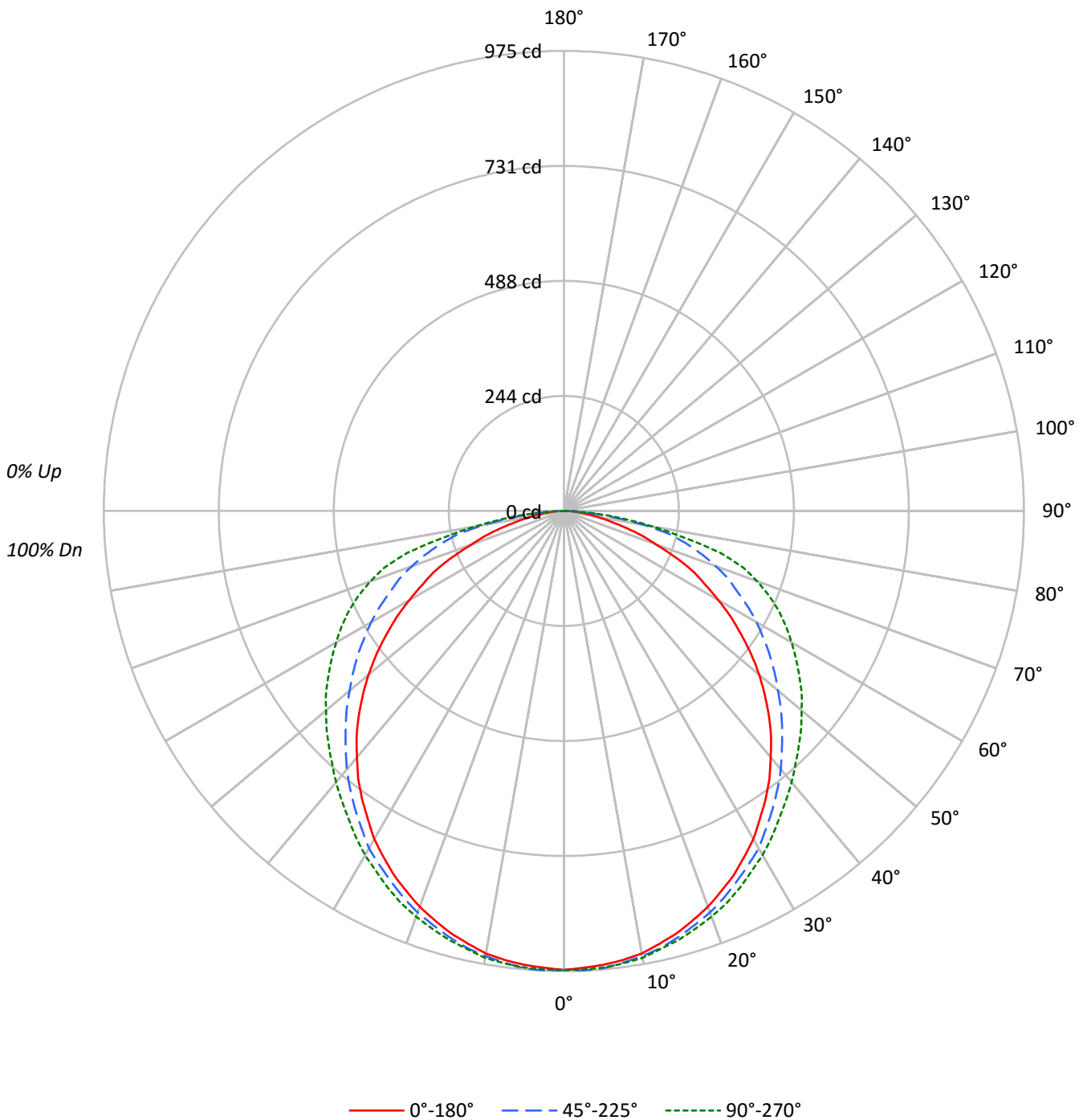
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2618	2618	2618
5°	2608	2628	2623
10°	2602	2617	2627
15°	2580	2606	2622
20°	2556	2593	2620
25°	2529	2573	2617
30°	2495	2565	2617
35°	2449	2534	2614
40°	2396	2514	2638
45°	2340	2489	2681
50°	2262	2481	2754
55°	2160	2500	2859
60°	2036	2538	2999
65°	1922	2586	3203
70°	1642	2698	3430
75°	1376	2809	3565
80°	1127	2715	2974
85°	979	2013	2186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.2	3.1
10°-20°	263.7	8.9
20°-30°	399.7	13.5
30°-40°	482.6	16.3
40°-50°	507.1	17.2
50°-60°	477.1	16.2
60°-70°	397.8	13.5
70°-80°	263.6	8.9
80°-90°	70.3	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°	755.6	25.6
0°-40°	1238.1	41.9
0°-60°	2222.4	75.2
0°-90°	2954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	965	967	973	973	971	92
15°	926	930	936	939	941	261
25°	852	857	866	878	881	392
35°	745	753	772	788	796	466
45°	615	624	654	688	704	474
55°	460	481	533	587	609	412
65°	302	328	406	473	503	294
75°	132	184	270	326	343	144
85°	32	48	65	71	71	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	972.7	972.7	972.7	972.7	972.7
2.5°	969.0	970.9	974.6	974.6	972.7
5°	965.3	967.1	972.7	972.7	970.9
7.5°	959.7	961.5	965.3	969.0	967.1
10°	952.2	954.1	957.8	961.5	961.5
12.5°	939.2	941.0	948.5	950.4	950.4
15°	926.1	929.9	935.5	939.2	941.0
17.5°	909.4	913.1	920.5	928.0	928.0
20°	892.6	896.3	905.6	913.1	915.0
22.5°	872.1	877.7	887.0	896.3	900.0
25°	851.6	857.2	866.5	877.7	881.4
27.5°	827.4	833.0	846.0	859.0	860.9
30°	803.1	808.7	825.5	836.7	842.3
32.5°	773.3	780.8	797.6	814.3	819.9
35°	745.4	752.8	771.5	788.2	795.7
37.5°	715.6	723.0	743.5	764.0	773.3
40°	682.0	691.3	715.6	737.9	751.0
42.5°	650.3	659.7	683.9	713.7	726.7
45°	614.9	624.3	654.1	687.6	704.4
47.5°	577.7	588.8	624.3	665.3	682.0
50°	540.4	553.4	592.6	639.2	657.8
52.5°	501.3	518.0	562.8	613.1	635.4
55°	460.3	480.8	532.9	587.0	609.3
57.5°	421.1	439.8	501.3	559.0	583.3
60°	378.3	402.5	471.5	531.1	557.2
62.5°	337.3	363.4	439.8	503.1	531.1
65°	301.9	328.0	406.2	473.3	503.1
67.5°	255.3	290.7	378.3	441.6	471.5
70°	208.7	257.2	342.9	408.1	436.0
72.5°	173.3	219.9	307.5	372.7	398.8
75°	132.3	184.5	270.2	326.1	342.9
77.5°	98.8	152.8	231.1	259.0	260.9
80°	72.7	117.4	175.2	184.5	191.9
82.5°	50.3	82.0	113.7	124.9	128.6
85°	31.7	48.4	65.2	70.8	70.8
87.5°	16.8	18.6	22.4	22.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)