

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: P308324

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP250-W2A-U-4000K**

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: P308324
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-4000K
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: 2864.0 lumens
Efficiency: N/A
Efficacy: 76.2 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

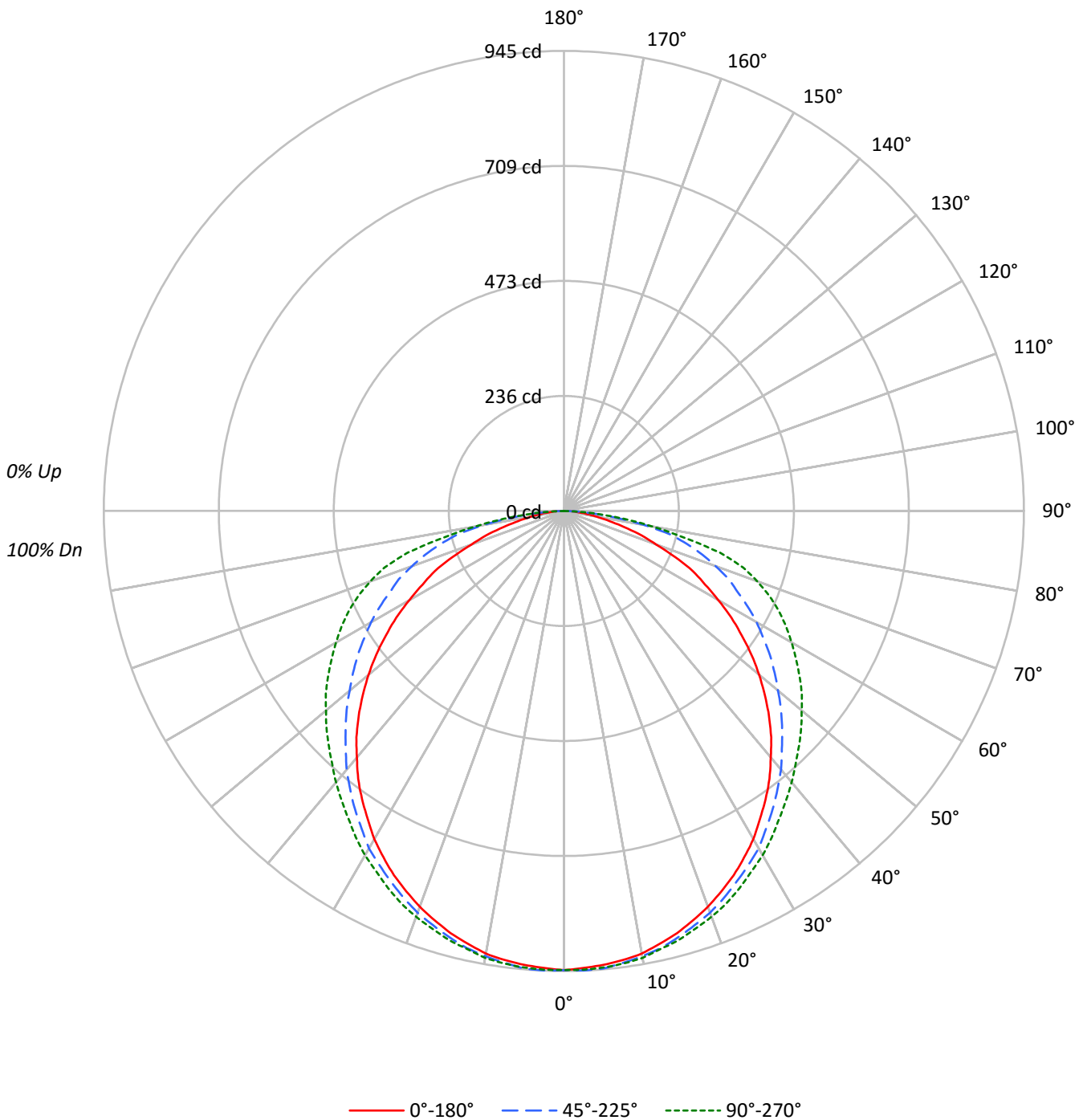
Input Watts (W): 37.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2538	2538	2538
5°	2528	2548	2543
10°	2523	2537	2547
15°	2501	2527	2542
20°	2478	2514	2540
25°	2451	2494	2537
30°	2420	2487	2537
35°	2374	2457	2534
40°	2323	2437	2558
45°	2269	2413	2599
50°	2193	2405	2670
55°	2093	2424	2772
60°	1974	2460	2907
65°	1864	2508	3106
70°	1592	2615	3327
75°	1334	2724	3456
80°	1093	2631	2884
85°	948	1951	2121



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.4	3.1
10°-20°	255.7	8.9
20°-30°	387.5	13.5
30°-40°	467.9	16.3
40°-50°	491.6	17.2
50°-60°	462.6	16.2
60°-70°	385.7	13.5
70°-80°	255.6	8.9
80°-90°	68.1	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°	732.5	25.6
0°-40°	1200.4	41.9
0°-60°	2154.6	75.2
0°-90°	2864.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2864.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	936	938	943	943	941	89
15°	898	902	907	911	912	253
25°	826	831	840	851	855	380
35°	723	730	748	764	771	452
45°	596	605	634	667	683	459
55°	446	466	517	569	591	399
65°	293	318	394	459	488	285
75°	128	179	262	316	332	139
85°	31	47	63	69	69	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	943.1	943.1	943.1	943.1	943.1
2.5°	939.5	941.3	944.9	944.9	943.1
5°	935.9	937.7	943.1	943.1	941.3
7.5°	930.4	932.2	935.9	939.5	937.7
10°	923.2	925.0	928.6	932.2	932.2
12.5°	910.6	912.4	919.6	921.4	921.4
15°	897.9	901.5	906.9	910.6	912.4
17.5°	881.7	885.3	892.5	899.7	899.7
20°	865.4	869.0	878.0	885.3	887.1
22.5°	845.5	850.9	860.0	869.0	872.6
25°	825.6	831.1	840.1	850.9	854.6
27.5°	802.2	807.6	820.2	832.9	834.7
30°	778.7	784.1	800.4	811.2	816.6
32.5°	749.8	757.0	773.3	789.5	794.9
35°	722.7	729.9	748.0	764.2	771.4
37.5°	693.8	701.0	720.9	740.7	749.8
40°	661.2	670.3	693.8	715.4	728.1
42.5°	630.5	639.6	663.0	692.0	704.6
45°	596.2	605.2	634.1	666.7	682.9
47.5°	560.1	570.9	605.2	645.0	661.2
50°	523.9	536.6	574.5	619.7	637.8
52.5°	486.0	502.3	545.6	594.4	616.1
55°	446.2	466.1	516.7	569.1	590.8
57.5°	408.3	426.4	486.0	542.0	565.5
60°	366.8	390.2	457.1	514.9	540.2
62.5°	327.0	352.3	426.4	487.8	514.9
65°	292.7	318.0	393.9	458.9	487.8
67.5°	247.5	281.8	366.8	428.2	457.1
70°	202.3	249.3	332.4	395.7	422.8
72.5°	168.0	213.2	298.1	361.3	386.6
75°	128.3	178.9	262.0	316.2	332.4
77.5°	95.8	148.1	224.0	251.1	252.9
80°	70.5	113.8	169.8	178.9	186.1
82.5°	48.8	79.5	110.2	121.0	124.7
85°	30.7	47.0	63.2	68.7	68.7
87.5°	16.3	18.1	21.7	21.7	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)