

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: P307206

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CA08-W2A-U-3000K**

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: P307206
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L82765-HRP-CA08-W2A-U-3000K
Description: 1'X4' 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: 2976.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

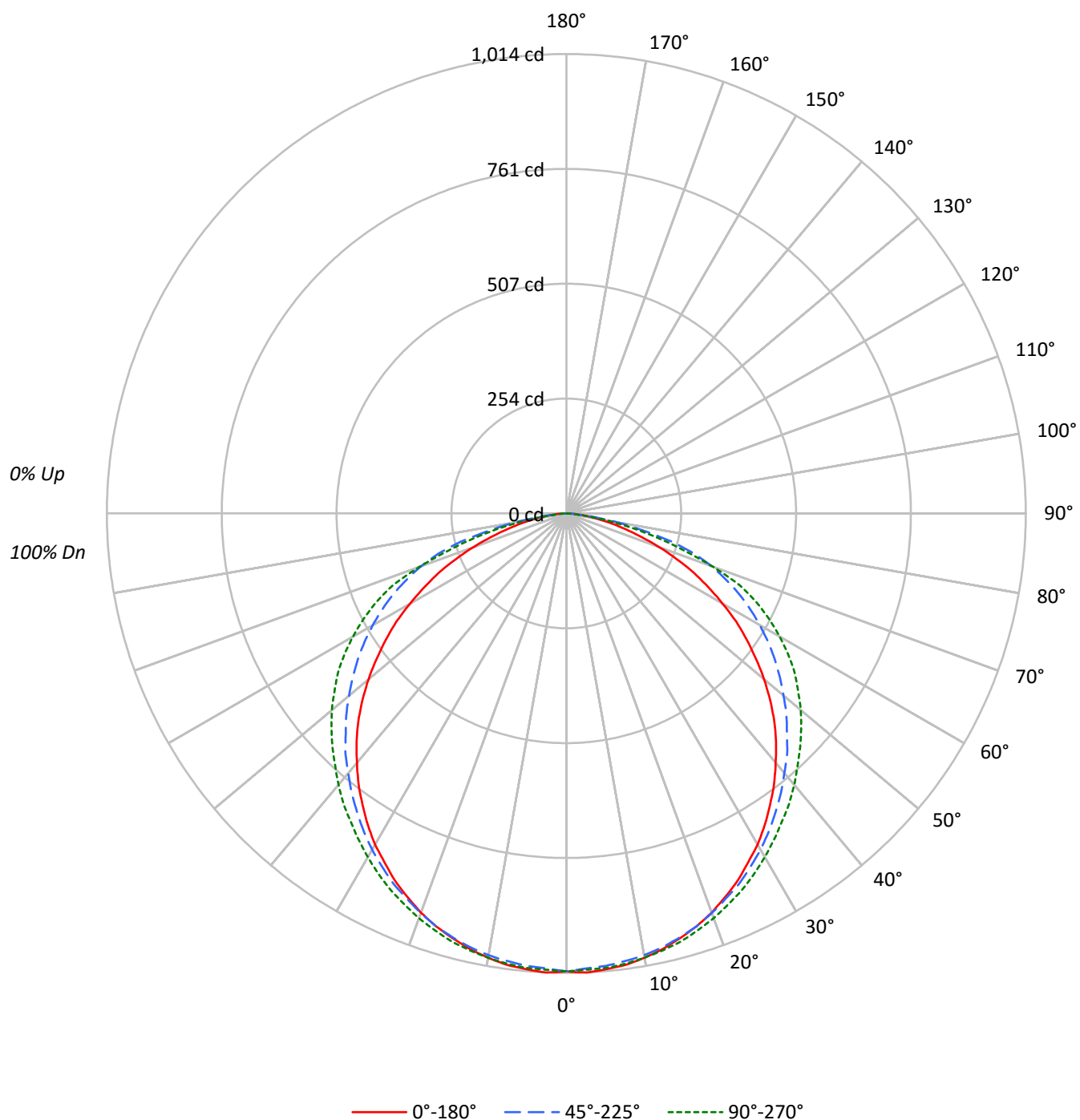
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2720	2720	2720
5°	2727	2707	2720
10°	2721	2705	2721
15°	2703	2698	2724
20°	2685	2688	2723
25°	2656	2678	2723
30°	2623	2664	2722
35°	2576	2644	2727
40°	2525	2630	2748
45°	2471	2621	2778
50°	2386	2621	2828
55°	2283	2634	2889
60°	2146	2654	2926
65°	1978	2681	2944
70°	1723	2688	2710
75°	1420	2501	2190
80°	1117	1798	1464
85°	868	695	346



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.7	3.2
10°-20°	274.6	9.2
20°-30°	416.9	14.0
30°-40°	505.2	17.0
40°-50°	532.3	17.9
50°-60°	497.0	16.7
60°-70°	397.2	13.3
70°-80°	218.5	7.3
80°-90°	38.6	1.3
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°	787.2	26.5
0°-40°	1292.4	43.4
0°-60°	2321.7	78.0
0°-90°	2976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2976.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1010	1007	1002	1009	1007	96
15°	970	970	969	978	978	274
25°	895	896	902	915	917	412
35°	784	792	805	825	830	491
45°	649	662	689	720	730	500
55°	487	511	562	601	616	434
65°	311	350	421	456	462	306
75°	137	196	240	216	211	147
85°	28	36	22	14	11	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1010.7	1010.7	1010.7	1010.7	1010.7
2.5°	1014.4	1011.6	1005.0	1010.7	1007.9
5°	1009.7	1006.9	1002.2	1008.8	1006.9
7.5°	1005.0	1001.3	996.6	1004.1	1002.2
10°	995.7	992.9	990.1	996.6	995.7
12.5°	984.5	983.5	980.7	988.2	987.3
15°	970.4	970.4	968.6	977.9	977.9
17.5°	955.5	954.5	955.5	965.7	964.8
20°	937.7	937.7	938.6	950.8	950.8
22.5°	916.1	917.1	919.9	934.9	933.9
25°	894.6	896.5	902.1	915.2	917.1
27.5°	868.4	873.1	879.7	895.6	897.4
30°	844.1	846.9	857.2	872.2	875.9
32.5°	815.1	820.7	831.9	848.8	853.5
35°	784.2	791.7	804.8	825.4	830.1
37.5°	753.3	759.9	777.7	799.2	807.6
40°	718.7	729.9	748.6	773.0	782.3
42.5°	685.0	696.2	721.5	746.8	755.2
45°	649.4	661.6	688.7	719.6	729.9
47.5°	610.1	624.2	658.8	691.6	702.8
50°	569.9	587.7	626.1	662.5	675.6
52.5°	527.8	550.3	594.2	632.6	644.8
55°	486.6	510.9	561.5	600.8	615.8
57.5°	444.5	470.7	527.8	572.7	581.1
60°	398.7	430.5	493.2	532.5	543.7
62.5°	353.7	390.2	457.6	495.0	504.4
65°	310.7	350.0	421.1	455.7	462.3
67.5°	263.9	310.7	380.9	412.7	414.6
70°	219.0	273.3	341.6	356.5	344.4
72.5°	175.0	233.0	295.7	283.5	273.3
75°	136.6	195.6	240.5	216.2	210.6
77.5°	101.1	160.0	172.2	159.1	148.8
80°	72.1	126.3	116.0	99.2	94.5
82.5°	49.6	79.5	63.6	49.6	43.0
85°	28.1	35.6	22.5	14.0	11.2
87.5°	12.2	8.4	4.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)