

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: P307109

Luminaire Tested: **14FCZ2-29-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: P307109
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: 14FCZ2-29-UNV-L82765-HRP-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 4000K 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: 1969.0 lumens
Efficiency: N/A
Efficacy: 81.7 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

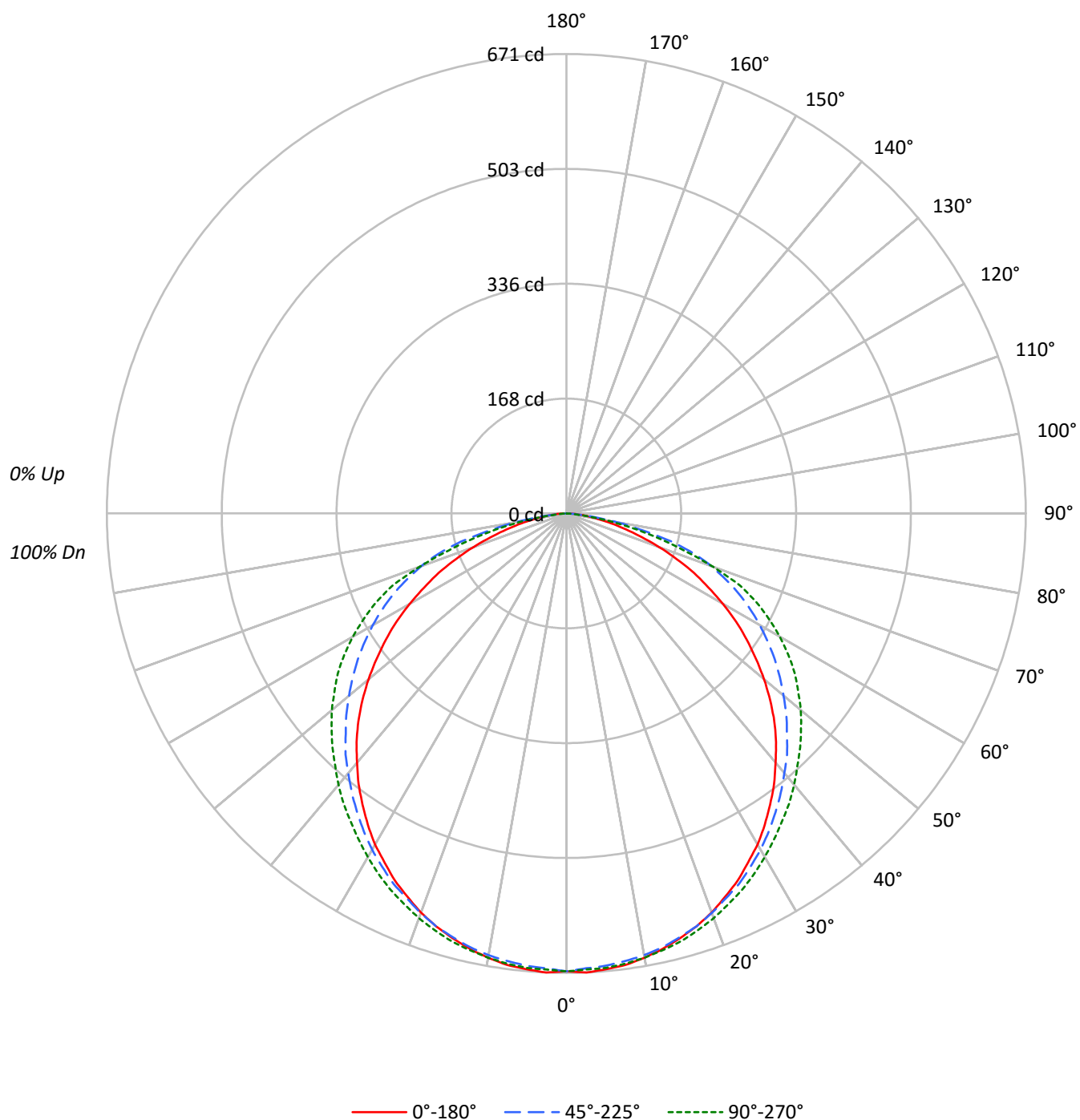
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1799	1799	1799
5°	1805	1791	1800
10°	1800	1790	1800
15°	1789	1785	1802
20°	1777	1778	1802
25°	1757	1772	1802
30°	1735	1762	1801
35°	1704	1749	1804
40°	1670	1740	1818
45°	1635	1734	1838
50°	1579	1734	1871
55°	1511	1743	1911
60°	1420	1756	1936
65°	1309	1774	1948
70°	1140	1778	1792
75°	940	1654	1448
80°	739	1190	969
85°	574	460	228



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.3	3.2
10°-20°	181.7	9.2
20°-30°	275.9	14.0
30°-40°	334.2	17.0
40°-50°	352.2	17.9
50°-60°	328.8	16.7
60°-70°	262.8	13.3
70°-80°	144.6	7.3
80°-90°	25.5	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°	520.8	26.5
0°-40°	855.1	43.4
0°-60°	1536.1	78.0
0°-90°	1969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1969.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	669	669	669	669	669	
5°	668	666	663	667	666	64
15°	642	642	641	647	647	181
25°	592	593	597	606	607	272
35°	519	524	532	546	549	325
45°	430	438	456	476	483	331
55°	322	338	372	398	407	287
65°	206	232	279	302	306	202
75°	90	129	159	143	139	97
85°	19	24	15	9	7	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	668.7	668.7	668.7	668.7	668.7
2.5°	671.2	669.3	665.0	668.7	666.8
5°	668.1	666.2	663.1	667.4	666.2
7.5°	665.0	662.5	659.4	664.3	663.1
10°	658.8	656.9	655.1	659.4	658.8
12.5°	651.3	650.7	648.9	653.8	653.2
15°	642.1	642.1	640.8	647.0	647.0
17.5°	632.2	631.5	632.2	639.0	638.3
20°	620.4	620.4	621.0	629.1	629.1
22.5°	606.1	606.8	608.6	618.5	617.9
25°	591.9	593.1	596.9	605.5	606.8
27.5°	574.6	577.7	582.0	592.5	593.8
30°	558.5	560.3	567.1	577.0	579.5
32.5°	539.3	543.0	550.4	561.6	564.7
35°	518.8	523.8	532.5	546.1	549.2
37.5°	498.4	502.8	514.5	528.8	534.3
40°	475.5	482.9	495.3	511.4	517.6
42.5°	453.2	460.6	477.4	494.1	499.7
45°	429.7	437.7	455.7	476.1	482.9
47.5°	403.7	413.0	435.9	457.6	465.0
50°	377.1	388.8	414.2	438.4	447.0
52.5°	349.2	364.1	393.2	418.5	426.6
55°	322.0	338.1	371.5	397.5	407.4
57.5°	294.1	311.4	349.2	378.9	384.5
60°	263.8	284.8	326.3	352.3	359.7
62.5°	234.0	258.2	302.8	327.5	333.7
65°	205.6	231.6	278.6	301.5	305.9
67.5°	174.6	205.6	252.0	273.0	274.3
70°	144.9	180.8	226.0	235.9	227.8
72.5°	115.8	154.2	195.7	187.6	180.8
75°	90.4	129.4	159.1	143.0	139.3
77.5°	66.9	105.9	113.9	105.3	98.4
80°	47.7	83.6	76.8	65.6	62.5
82.5°	32.8	52.6	42.1	32.8	28.5
85°	18.6	23.5	14.9	9.3	7.4
87.5°	8.0	5.6	3.1	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)