

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: P307106

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CP250-W2A-U-2700K**

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: P307106
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-2700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 2700K 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: 1810.0 lumens
Efficiency: N/A
Efficacy: 76.1 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

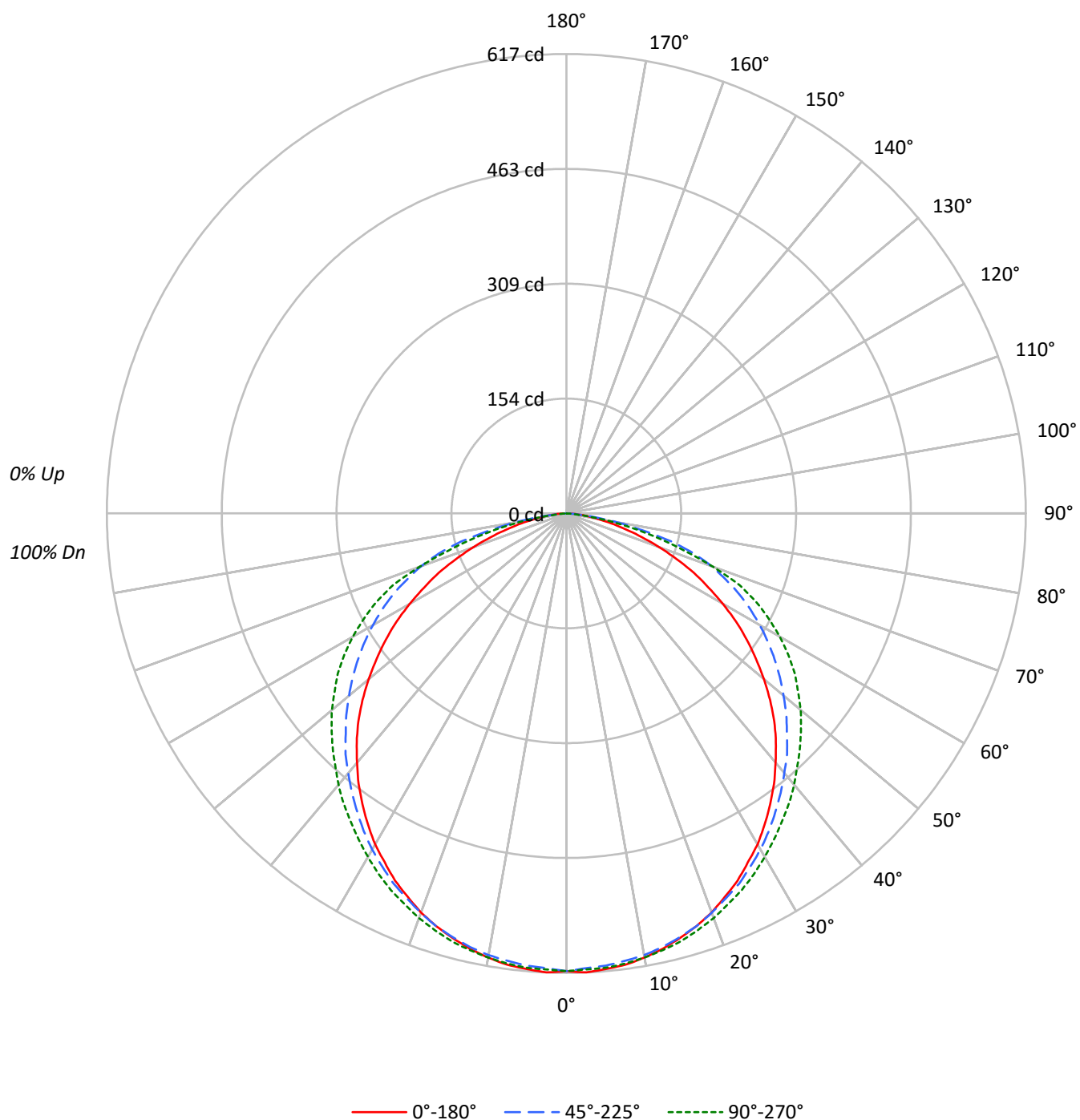
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1654	1654	1654
5°	1659	1647	1654
10°	1655	1646	1655
15°	1644	1641	1657
20°	1633	1635	1656
25°	1616	1629	1656
30°	1595	1620	1655
35°	1567	1608	1658
40°	1535	1599	1671
45°	1503	1594	1689
50°	1451	1594	1720
55°	1389	1602	1757
60°	1305	1614	1780
65°	1203	1631	1791
70°	1048	1634	1648
75°	864	1521	1332
80°	679	1094	891
85°	528	423	210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.2	3.2
10°-20°	167.0	9.2
20°-30°	253.6	14.0
30°-40°	307.3	17.0
40°-50°	323.8	17.9
50°-60°	302.3	16.7
60°-70°	241.6	13.3
70°-80°	132.9	7.3
80°-90°	23.5	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°	478.8	26.5
0°-40°	786.0	43.4
0°-60°	1412.1	78.0
0°-90°	1810.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1810.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	614	612	610	614	612	58
15°	590	590	589	595	595	167
25°	544	545	549	557	558	250
35°	477	482	490	502	505	298
45°	395	402	419	438	444	304
55°	296	311	342	365	374	264
65°	189	213	256	277	281	186
75°	83	119	146	132	128	89
85°	17	22	14	8	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	614.7	614.7	614.7	614.7	614.7
2.5°	617.0	615.3	611.3	614.7	613.0
5°	614.1	612.4	609.6	613.5	612.4
7.5°	611.3	609.0	606.1	610.7	609.6
10°	605.6	603.9	602.2	606.1	605.6
12.5°	598.7	598.2	596.5	601.0	600.5
15°	590.2	590.2	589.1	594.8	594.8
17.5°	581.1	580.5	581.1	587.4	586.8
20°	570.3	570.3	570.9	578.3	578.3
22.5°	557.2	557.8	559.5	568.6	568.0
25°	544.1	545.2	548.7	556.6	557.8
27.5°	528.2	531.0	535.0	544.7	545.8
30°	513.4	515.1	521.3	530.5	532.7
32.5°	495.7	499.1	506.0	516.2	519.1
35°	477.0	481.5	489.5	502.0	504.8
37.5°	458.2	462.2	473.0	486.1	491.2
40°	437.1	443.9	455.3	470.1	475.8
42.5°	416.6	423.4	438.8	454.2	459.3
45°	395.0	402.4	418.9	437.7	443.9
47.5°	371.1	379.6	400.7	420.6	427.4
50°	346.6	357.4	380.8	403.0	410.9
52.5°	321.0	334.7	361.4	384.7	392.1
55°	296.0	310.8	341.5	365.4	374.5
57.5°	270.3	286.3	321.0	348.3	353.4
60°	242.5	261.8	299.9	323.8	330.7
62.5°	215.1	237.3	278.3	301.1	306.8
65°	189.0	212.9	256.1	277.2	281.2
67.5°	160.5	189.0	231.6	251.0	252.1
70°	133.2	166.2	207.7	216.8	209.4
72.5°	106.4	141.7	179.9	172.5	166.2
75°	83.1	119.0	146.3	131.5	128.1
77.5°	61.5	97.3	104.7	96.8	90.5
80°	43.8	76.8	70.6	60.3	57.5
82.5°	30.2	48.4	38.7	30.2	26.2
85°	17.1	21.6	13.7	8.5	6.8
87.5°	7.4	5.1	2.8	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)