

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: P307107

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CP250-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: P307107
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-3000K
Description: 1'X4' 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: 1862.0 lumens
Efficiency: N/A
Efficacy: 78.9 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

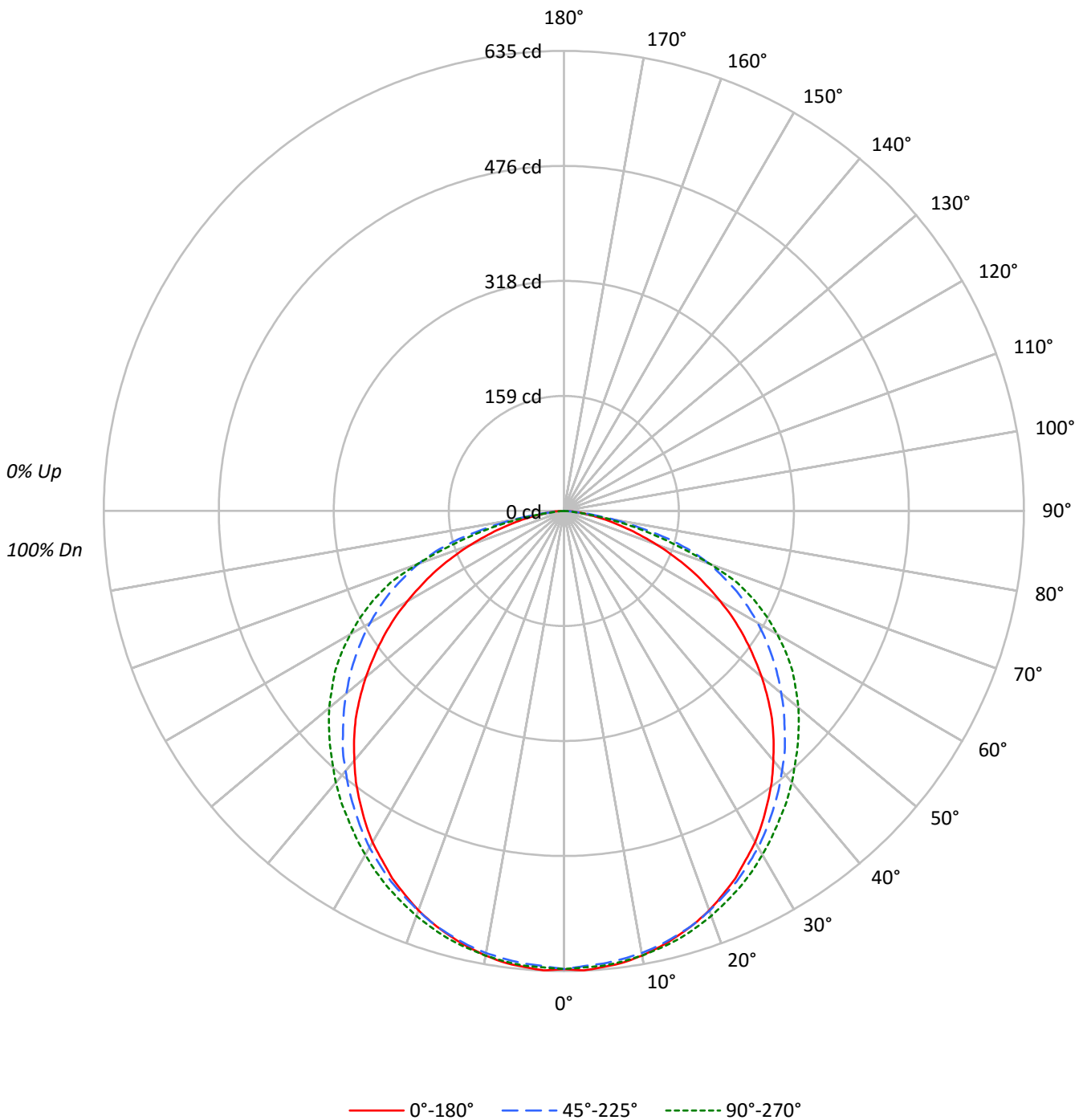
Input Watts (W): 23.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1702	1702	1702
5°	1707	1694	1702
10°	1702	1693	1702
15°	1692	1688	1705
20°	1680	1682	1704
25°	1662	1676	1704
30°	1641	1666	1703
35°	1612	1654	1706
40°	1580	1645	1720
45°	1546	1640	1738
50°	1493	1640	1770
55°	1429	1648	1808
60°	1342	1661	1831
65°	1238	1678	1841
70°	1078	1681	1696
75°	889	1565	1369
80°	699	1125	916
85°	543	435	216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	3.2
10°-20°	171.8	9.2
20°-30°	260.9	14.0
30°-40°	316.1	17.0
40°-50°	333.1	17.9
50°-60°	311.0	16.7
60°-70°	248.5	13.3
70°-80°	136.7	7.3
80°-90°	24.1	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°	492.5	26.5
0°-40°	808.6	43.4
0°-60°	1452.6	78.0
0°-90°	1862.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1862.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	632	630	627	631	630	60
15°	607	607	606	612	612	171
25°	560	561	564	573	574	258
35°	491	495	504	516	519	307
45°	406	414	431	450	457	313
55°	304	320	351	376	385	272
65°	194	219	264	285	289	191
75°	86	122	150	135	132	92
85°	18	22	14	9	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	632.3	632.3	632.3	632.3	632.3
2.5°	634.7	632.9	628.8	632.3	630.6
5°	631.8	630.0	627.1	631.2	630.0
7.5°	628.8	626.5	623.6	628.2	627.1
10°	623.0	621.2	619.5	623.6	623.0
12.5°	616.0	615.4	613.6	618.3	617.7
15°	607.2	607.2	606.0	611.9	611.9
17.5°	597.8	597.2	597.8	604.2	603.7
20°	586.7	586.7	587.3	594.9	594.9
22.5°	573.2	573.8	575.6	584.9	584.3
25°	559.7	560.9	564.4	572.6	573.8
27.5°	543.3	546.3	550.4	560.3	561.5
30°	528.1	529.9	536.3	545.7	548.0
32.5°	510.0	513.5	520.5	531.1	534.0
35°	490.7	495.3	503.5	516.4	519.3
37.5°	471.3	475.4	486.6	500.0	505.3
40°	449.7	456.7	468.4	483.6	489.5
42.5°	428.6	435.6	451.4	467.2	472.5
45°	406.3	414.0	430.9	450.3	456.7
47.5°	381.7	390.5	412.2	432.7	439.7
50°	356.6	367.7	391.7	414.5	422.7
52.5°	330.2	344.3	371.8	395.8	403.4
55°	304.5	319.7	351.3	375.9	385.3
57.5°	278.1	294.5	330.2	358.3	363.6
60°	249.4	269.3	308.6	333.2	340.2
62.5°	221.3	244.2	286.3	309.7	315.6
65°	194.4	219.0	263.5	285.1	289.2
67.5°	165.1	194.4	238.3	258.2	259.4
70°	137.0	171.0	213.7	223.1	215.5
72.5°	109.5	145.8	185.0	177.4	171.0
75°	85.5	122.4	150.5	135.3	131.7
77.5°	63.2	100.1	107.7	99.5	93.1
80°	45.1	79.0	72.6	62.1	59.1
82.5°	31.0	49.8	39.8	31.0	26.9
85°	17.6	22.2	14.1	8.8	7.0
87.5°	7.6	5.3	2.9	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)