

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: P307108

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CP250-W2A-U-3500K**

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: P307108
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-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 3500K 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: 1926.0 lumens
Efficiency: N/A
Efficacy: 80.6 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

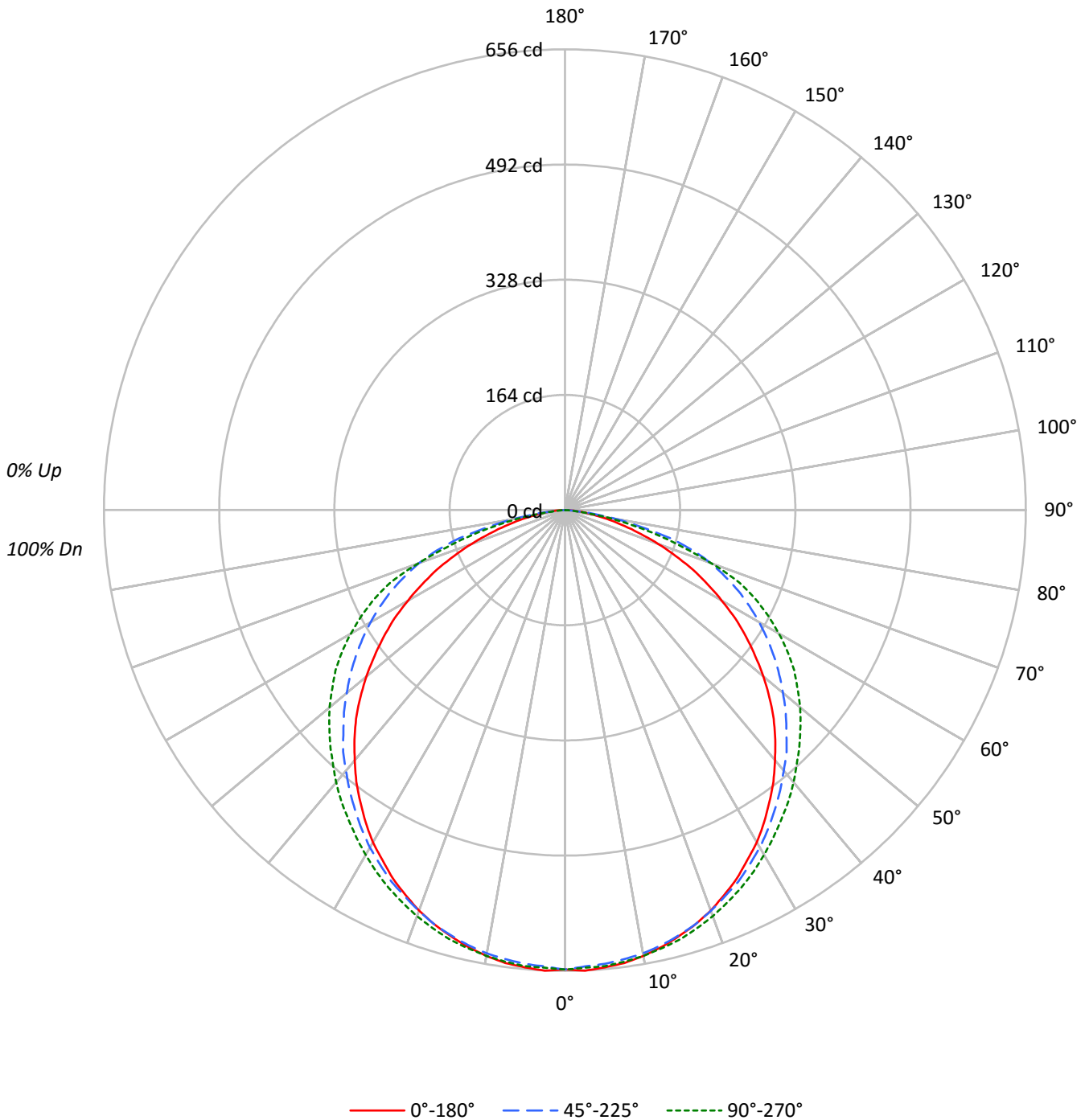
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1760	1760	1760
5°	1765	1752	1760
10°	1761	1751	1761
15°	1750	1746	1763
20°	1738	1739	1762
25°	1719	1733	1762
30°	1698	1724	1762
35°	1667	1711	1765
40°	1634	1702	1779
45°	1600	1696	1798
50°	1544	1696	1831
55°	1477	1705	1870
60°	1389	1718	1894
65°	1280	1735	1905
70°	1115	1740	1754
75°	919	1618	1417
80°	722	1164	948
85°	562	448	225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.9	3.2
10°-20°	177.7	9.2
20°-30°	269.8	14.0
30°-40°	326.9	17.0
40°-50°	344.5	17.9
50°-60°	321.6	16.7
60°-70°	257.0	13.3
70°-80°	141.4	7.3
80°-90°	25.0	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°	509.4	26.5
0°-40°	836.4	43.4
0°-60°	1502.6	78.0
0°-90°	1926.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1926.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	654	652	649	653	652	62
15°	628	628	627	633	633	177
25°	579	580	584	592	594	267
35°	508	512	521	534	537	318
45°	420	428	446	466	472	323
55°	315	331	363	389	398	281
65°	201	226	272	295	299	198
75°	88	127	156	140	136	95
85°	18	23	14	9	7	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	654.1	654.1	654.1	654.1	654.1
2.5°	656.5	654.7	650.4	654.1	652.3
5°	653.5	651.7	648.6	652.9	651.7
7.5°	650.4	648.0	645.0	649.8	648.6
10°	644.4	642.6	640.8	645.0	644.4
12.5°	637.1	636.5	634.7	639.5	638.9
15°	628.0	628.0	626.8	632.9	632.9
17.5°	618.3	617.7	618.3	625.0	624.4
20°	606.8	606.8	607.4	615.3	615.3
22.5°	592.9	593.5	595.3	605.0	604.4
25°	579.0	580.2	583.8	592.3	593.5
27.5°	562.0	565.1	569.3	579.6	580.8
30°	546.3	548.1	554.8	564.4	566.9
32.5°	527.5	531.1	538.4	549.3	552.3
35°	507.5	512.4	520.8	534.2	537.2
37.5°	487.5	491.8	503.3	517.2	522.7
40°	465.1	472.4	484.5	500.2	506.3
42.5°	443.3	450.6	466.9	483.3	488.7
45°	420.3	428.2	445.7	465.7	472.4
47.5°	394.9	404.0	426.4	447.6	454.8
50°	368.8	380.3	405.2	428.8	437.3
52.5°	341.6	356.1	384.6	409.4	417.3
55°	314.9	330.7	363.4	388.8	398.5
57.5°	287.7	304.6	341.6	370.6	376.1
60°	258.0	278.6	319.2	344.6	351.9
62.5°	228.9	252.5	296.2	320.4	326.4
65°	201.1	226.5	272.5	294.9	299.2
67.5°	170.8	201.1	246.5	267.1	268.3
70°	141.7	176.8	221.1	230.7	222.9
72.5°	113.3	150.8	191.4	183.5	176.8
75°	88.4	126.6	155.6	139.9	136.3
77.5°	65.4	103.6	111.4	103.0	96.3
80°	46.6	81.8	75.1	64.2	61.2
82.5°	32.1	51.5	41.2	32.1	27.9
85°	18.2	23.0	14.5	9.1	7.3
87.5°	7.9	5.5	3.0	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)