

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: P308469

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CA08-W2A-U-4500K**

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: P308469  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-34HE-UNV-L82765-RDP-CA08-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 2104.0 lumens  
Efficiency: N/A  
Efficacy: 74.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

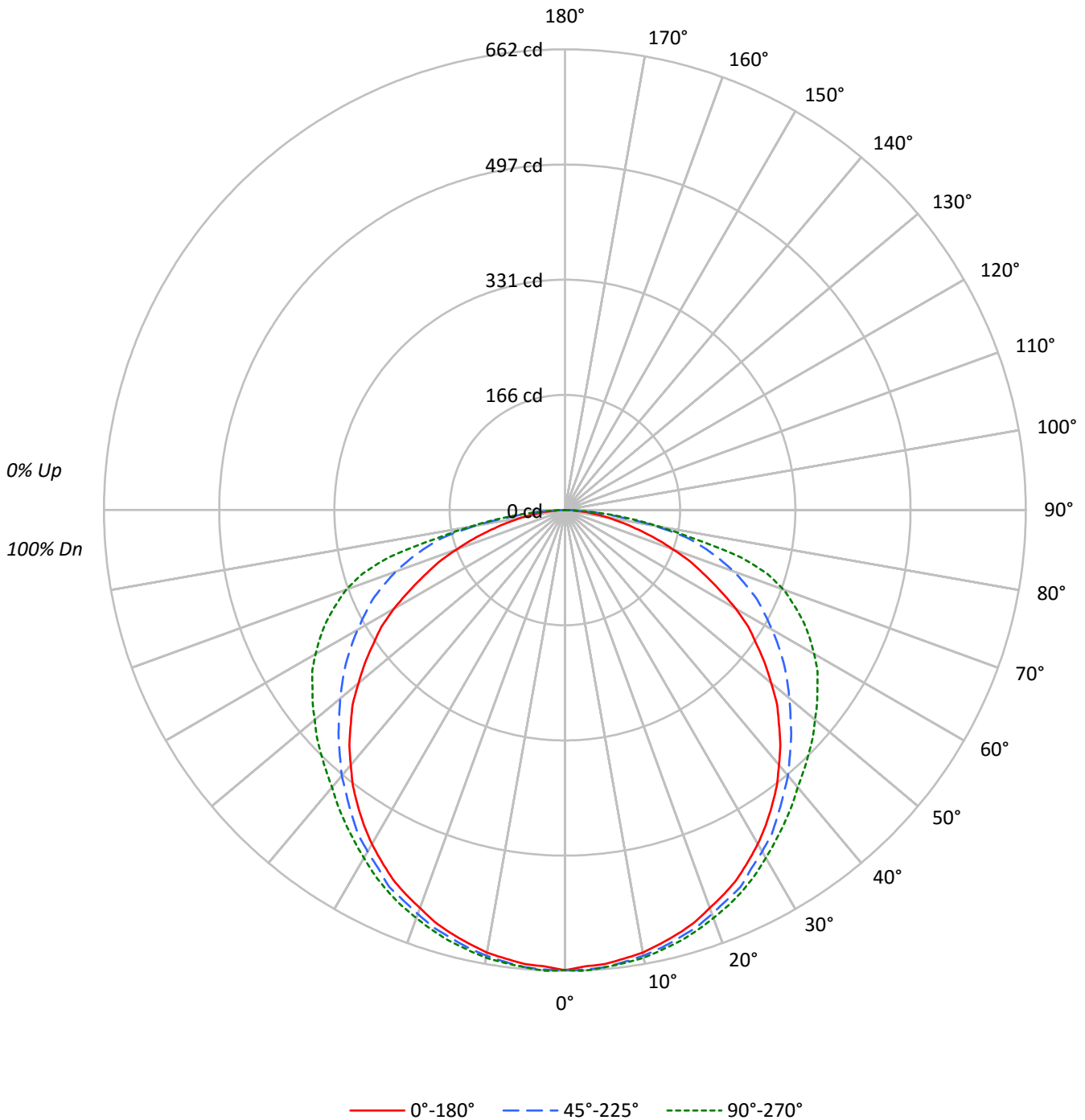
Input Watts (W): 28.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1778	1778	1778
5°	1769	1781	1781
10°	1764	1776	1785
15°	1755	1772	1785
20°	1742	1769	1786
25°	1737	1774	1792
30°	1722	1760	1794
35°	1703	1754	1805
40°	1680	1751	1827
45°	1655	1749	1885
50°	1620	1762	1963
55°	1576	1801	2077
60°	1524	1849	2224
65°	1419	1941	2405
70°	1303	2034	2630
75°	1143	2141	2720
80°	984	2039	2135
85°	861	1482	1624



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	3.0
10°-20°	179.5	8.5
20°-30°	273.9	13.0
30°-40°	334.4	15.9
40°-50°	357.5	17.0
50°-60°	345.1	16.4
60°-70°	297.1	14.1
70°-80°	201.0	9.6
80°-90°	53.0	2.5
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°	515.9	24.5
0°-40°	850.3	40.4
0°-60°	1552.9	73.8
0°-90°	2104.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2104.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	661	661	661	661	661	
5°	655	656	659	659	659	62
15°	630	632	636	639	641	178
25°	585	588	597	600	604	269
35°	518	523	534	545	550	324
45°	435	443	460	483	495	336
55°	336	347	384	422	443	301
65°	223	244	305	353	378	222
75°	110	146	206	248	262	118
85°	28	39	48	50	53	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	660.9	660.9	660.9	660.9	660.9
2.5°	656.3	657.8	660.9	660.9	662.5
5°	654.7	656.3	659.4	659.4	659.4
7.5°	650.1	651.6	654.7	656.3	656.3
10°	645.4	647.0	650.1	651.6	653.2
12.5°	637.7	639.2	643.9	647.0	647.0
15°	629.9	631.5	636.1	639.2	640.8
17.5°	620.7	623.8	628.4	631.5	633.0
20°	608.3	611.4	617.6	622.2	623.8
22.5°	597.4	600.5	606.7	611.4	614.5
25°	585.1	588.2	597.4	600.5	603.6
27.5°	569.6	572.7	580.4	586.6	591.3
30°	554.1	557.2	566.5	574.2	577.3
32.5°	537.1	541.7	552.6	558.7	563.4
35°	518.5	523.2	534.0	544.8	549.5
37.5°	499.9	504.6	515.4	529.3	535.5
40°	478.3	484.5	498.4	517.0	520.1
42.5°	458.1	465.9	478.3	499.9	507.7
45°	434.9	442.7	459.7	482.9	495.3
47.5°	413.3	421.0	439.6	467.4	482.9
50°	386.9	397.8	421.0	453.5	469.0
52.5°	362.2	371.5	402.4	438.0	456.6
55°	335.9	346.7	383.9	422.5	442.7
57.5°	312.7	321.9	363.7	407.1	430.3
60°	283.2	295.6	343.6	390.0	413.3
62.5°	252.3	270.9	323.5	371.5	396.2
65°	222.9	244.5	304.9	352.9	377.7
67.5°	196.6	219.8	281.7	332.8	356.0
70°	165.6	195.0	258.5	308.0	334.3
72.5°	137.8	170.3	232.2	281.7	304.9
75°	109.9	145.5	205.9	247.6	261.6
77.5°	85.1	119.2	176.4	188.8	190.4
80°	63.5	94.4	131.6	133.1	137.8
82.5°	43.3	66.6	85.1	92.9	94.4
85°	27.9	38.7	48.0	49.5	52.6
87.5°	12.4	13.9	17.0	15.5	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)