

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: P308478

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CA125-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: P308478
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-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 2096.0 lumens
Efficiency: N/A
Efficacy: 74.6 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

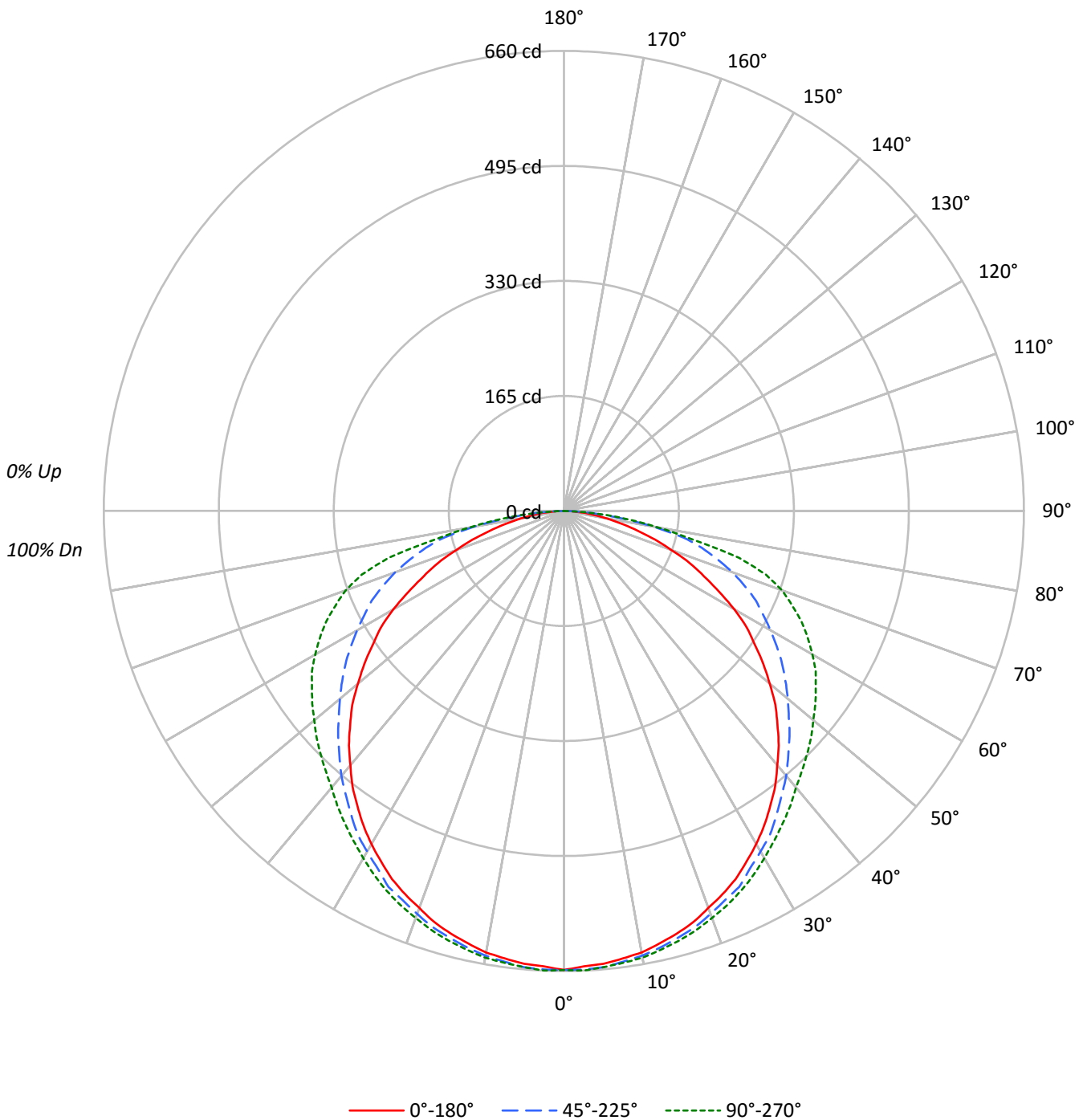
Input Watts (W): 28.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1772	1772	1772
5°	1762	1774	1774
10°	1757	1770	1778
15°	1748	1765	1778
20°	1735	1762	1779
25°	1730	1767	1785
30°	1715	1753	1787
35°	1697	1748	1798
40°	1674	1744	1820
45°	1649	1743	1878
50°	1614	1756	1956
55°	1570	1794	2069
60°	1519	1842	2216
65°	1414	1934	2395
70°	1298	2026	2620
75°	1138	2132	2709
80°	979	2032	2126
85°	858	1476	1618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	3.0
10°-20°	178.8	8.5
20°-30°	272.8	13.0
30°-40°	333.1	15.9
40°-50°	356.2	17.0
50°-60°	343.8	16.4
60°-70°	295.9	14.1
70°-80°	200.2	9.6
80°-90°	52.8	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°	513.9	24.5
0°-40°	847.0	40.4
0°-60°	1547.0	73.8
0°-90°	2096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2096.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	658	658	658	658	658	
5°	652	654	657	657	657	62
15°	628	629	634	637	638	177
25°	583	586	595	598	601	268
35°	516	521	532	543	547	323
45°	433	441	458	481	493	334
55°	335	345	382	421	441	300
65°	222	244	304	352	376	221
75°	110	145	205	247	261	117
85°	28	38	48	49	52	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	658.4	658.4	658.4	658.4	658.4
2.5°	653.8	655.3	658.4	658.4	659.9
5°	652.2	653.8	656.8	656.8	656.8
7.5°	647.6	649.1	652.2	653.8	653.8
10°	643.0	644.5	647.6	649.1	650.7
12.5°	635.3	636.8	641.4	644.5	644.5
15°	627.6	629.1	633.7	636.8	638.3
17.5°	618.3	621.4	626.0	629.1	630.6
20°	606.0	609.0	615.2	619.8	621.4
22.5°	595.2	598.3	604.4	609.0	612.1
25°	582.8	585.9	595.2	598.3	601.3
27.5°	567.4	570.5	578.2	584.4	589.0
30°	552.0	555.1	564.3	572.0	575.1
32.5°	535.0	539.7	550.5	556.6	561.3
35°	516.5	521.2	532.0	542.7	547.4
37.5°	498.0	502.7	513.5	527.3	533.5
40°	476.4	482.6	496.5	515.0	518.1
42.5°	456.4	464.1	476.4	498.0	505.7
45°	433.3	441.0	457.9	481.1	493.4
47.5°	411.7	419.4	437.9	465.7	481.1
50°	385.5	396.3	419.4	451.8	467.2
52.5°	360.8	370.1	400.9	436.4	454.9
55°	334.6	345.4	382.4	420.9	441.0
57.5°	311.5	320.7	362.3	405.5	428.6
60°	282.2	294.5	342.3	388.6	411.7
62.5°	251.3	269.8	322.3	370.1	394.7
65°	222.0	243.6	303.8	351.6	376.2
67.5°	195.8	218.9	280.6	331.5	354.6
70°	165.0	194.3	257.5	306.8	333.0
72.5°	137.2	169.6	231.3	280.6	303.8
75°	109.5	144.9	205.1	246.7	260.6
77.5°	84.8	118.7	175.8	188.1	189.7
80°	63.2	94.1	131.1	132.6	137.2
82.5°	43.2	66.3	84.8	92.5	94.1
85°	27.8	38.5	47.8	49.3	52.4
87.5°	12.3	13.9	17.0	15.4	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)