

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: P312671

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CA125-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: P312671
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-L83050-RDP-CA125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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: 2064.0 lumens
Efficiency: N/A
Efficacy: 74.8 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

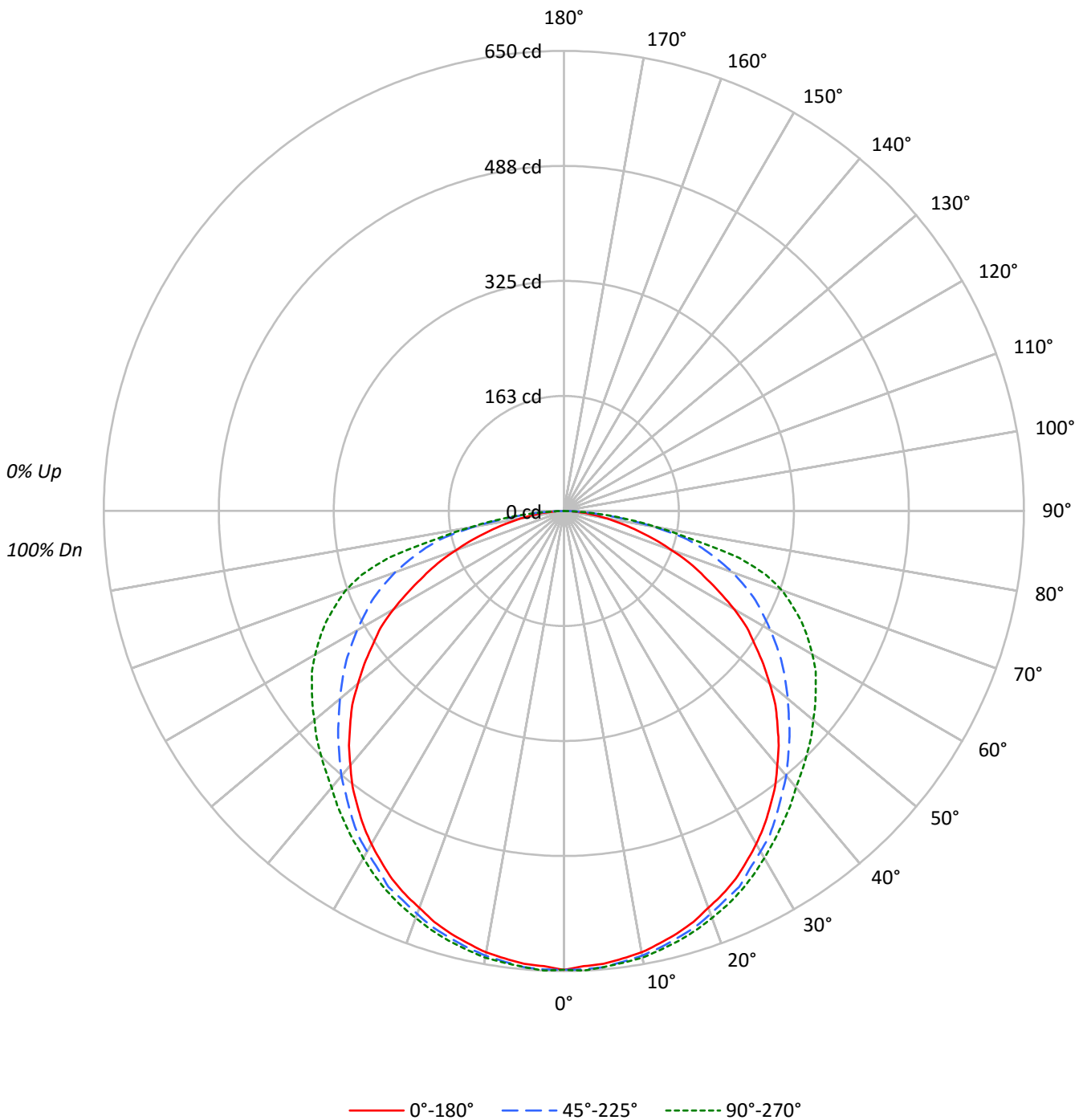
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1745	1745	1745
5°	1735	1747	1747
10°	1730	1743	1751
15°	1722	1738	1751
20°	1709	1735	1752
25°	1704	1740	1758
30°	1689	1727	1760
35°	1671	1721	1771
40°	1648	1717	1792
45°	1624	1716	1849
50°	1589	1729	1926
55°	1546	1767	2038
60°	1496	1814	2182
65°	1392	1904	2359
70°	1279	1995	2581
75°	1121	2099	2668
80°	965	2001	2094
85°	843	1454	1593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.3	3.0
10°-20°	176.1	8.5
20°-30°	268.7	13.0
30°-40°	328.0	15.9
40°-50°	350.7	17.0
50°-60°	338.5	16.4
60°-70°	291.4	14.1
70°-80°	197.2	9.6
80°-90°	52.0	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°	506.1	24.5
0°-40°	834.1	40.4
0°-60°	1523.4	73.8
0°-90°	2064.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2064.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	648	648	648	648	648	
5°	642	644	647	647	647	61
15°	618	620	624	627	629	174
25°	574	577	586	589	592	264
35°	509	513	524	534	539	318
45°	427	434	451	474	486	329
55°	330	340	377	414	434	295
65°	219	240	299	346	370	217
75°	108	143	202	243	257	116
85°	27	38	47	49	52	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	648.3	648.3	648.3	648.3	648.3
2.5°	643.8	645.3	648.3	648.3	649.9
5°	642.3	643.8	646.8	646.8	646.8
7.5°	637.7	639.2	642.3	643.8	643.8
10°	633.2	634.7	637.7	639.2	640.7
12.5°	625.6	627.1	631.6	634.7	634.7
15°	618.0	619.5	624.0	627.1	628.6
17.5°	608.9	611.9	616.5	619.5	621.0
20°	596.7	599.8	605.8	610.4	611.9
22.5°	586.1	589.1	595.2	599.8	602.8
25°	573.9	577.0	586.1	589.1	592.2
27.5°	558.8	561.8	569.4	575.5	580.0
30°	543.6	546.6	555.7	563.3	566.3
32.5°	526.9	531.4	542.1	548.1	552.7
35°	508.6	513.2	523.8	534.5	539.0
37.5°	490.4	495.0	505.6	519.3	525.4
40°	469.2	475.2	488.9	507.1	510.2
42.5°	449.4	457.0	469.2	490.4	498.0
45°	426.7	434.3	451.0	473.7	485.9
47.5°	405.4	413.0	431.2	458.5	473.7
50°	379.6	390.2	413.0	444.9	460.1
52.5°	355.3	364.4	394.8	429.7	447.9
55°	329.5	340.1	376.6	414.5	434.3
57.5°	306.7	315.8	356.8	399.3	422.1
60°	277.9	290.0	337.1	382.6	405.4
62.5°	247.5	265.7	317.3	364.4	388.7
65°	218.6	239.9	299.1	346.2	370.5
67.5°	192.8	215.6	276.3	326.4	349.2
70°	162.5	191.3	253.6	302.2	328.0
72.5°	135.1	167.0	227.8	276.3	299.1
75°	107.8	142.7	201.9	242.9	256.6
77.5°	83.5	116.9	173.1	185.2	186.8
80°	62.3	92.6	129.1	130.6	135.1
82.5°	42.5	65.3	83.5	91.1	92.6
85°	27.3	38.0	47.1	48.6	51.6
87.5°	12.1	13.7	16.7	15.2	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)