

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: P308468

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CA08-W2A-U-4000K**

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: P308468
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-4000K
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: 2068.0 lumens
Efficiency: N/A
Efficacy: 74.1 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

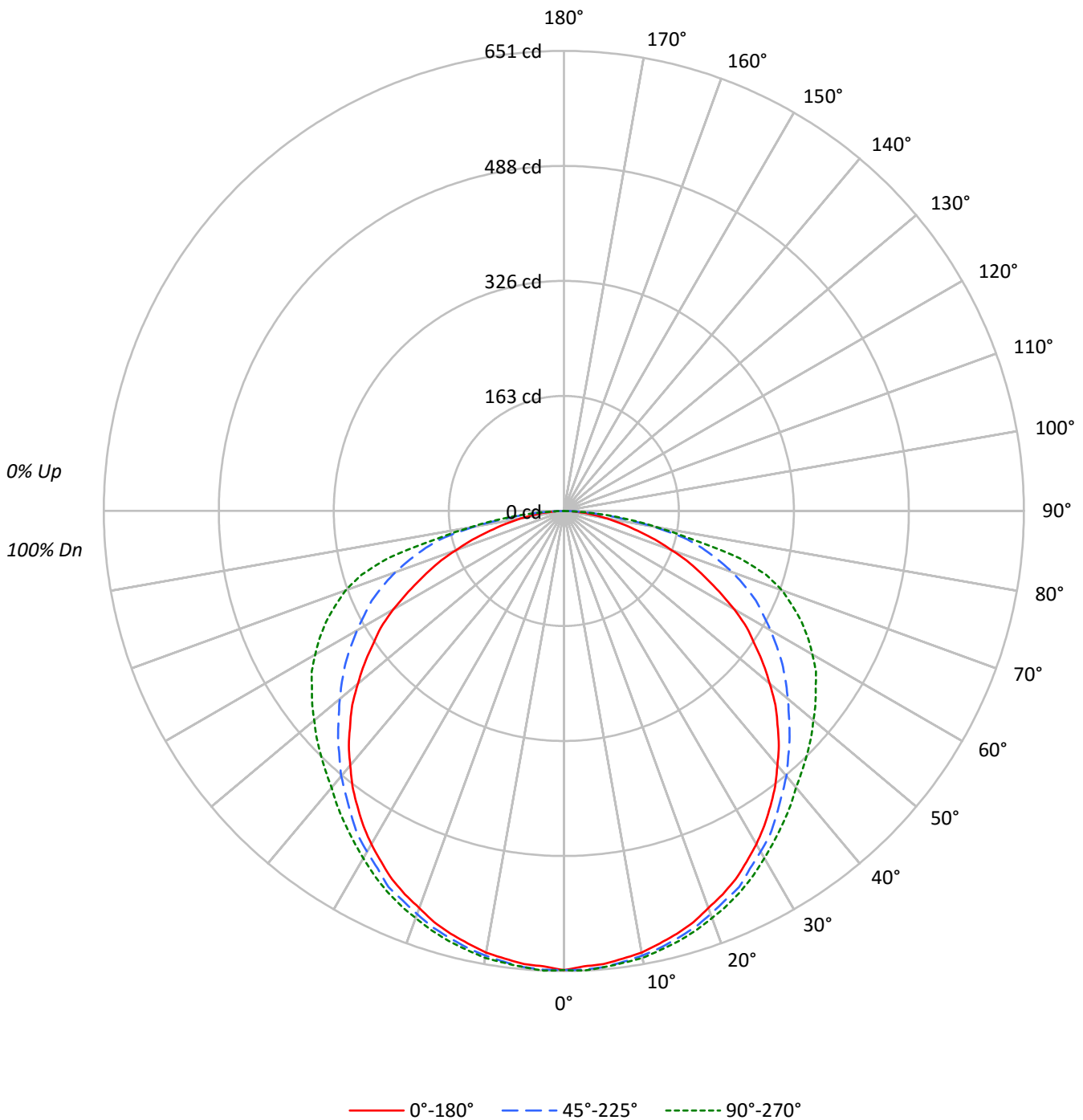
Input Watts (W): 27.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1748	1748	1748
5°	1738	1751	1751
10°	1733	1746	1754
15°	1725	1742	1755
20°	1712	1738	1756
25°	1708	1743	1762
30°	1692	1730	1763
35°	1674	1724	1774
40°	1651	1721	1796
45°	1627	1719	1853
50°	1592	1732	1930
55°	1549	1770	2041
60°	1498	1817	2186
65°	1395	1908	2364
70°	1281	1999	2585
75°	1123	2103	2673
80°	967	2004	2098
85°	846	1457	1596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.4	3.0
10°-20°	176.4	8.5
20°-30°	269.2	13.0
30°-40°	328.7	15.9
40°-50°	351.4	17.0
50°-60°	339.2	16.4
60°-70°	292.0	14.1
70°-80°	197.5	9.6
80°-90°	52.1	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°	507.1	24.5
0°-40°	835.7	40.4
0°-60°	1526.3	73.8
0°-90°	2068.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2068.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	644	645	648	648	648	61
15°	619	621	625	628	630	175
25°	575	578	587	590	593	265
35°	510	514	525	536	540	319
45°	428	435	452	475	487	330
55°	330	341	377	415	435	296
65°	219	240	300	347	371	218
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°	649.6	649.6	649.6	649.6	649.6
2.5°	645.0	646.6	649.6	649.6	651.1
5°	643.5	645.0	648.1	648.1	648.1
7.5°	638.9	640.5	643.5	645.0	645.0
10°	634.4	635.9	638.9	640.5	642.0
12.5°	626.8	628.3	632.9	635.9	635.9
15°	619.2	620.7	625.3	628.3	629.8
17.5°	610.0	613.1	617.6	620.7	622.2
20°	597.9	600.9	607.0	611.6	613.1
22.5°	587.2	590.3	596.3	600.9	604.0
25°	575.1	578.1	587.2	590.3	593.3
27.5°	559.8	562.9	570.5	576.6	581.1
30°	544.6	547.7	556.8	564.4	567.4
32.5°	527.9	532.5	543.1	549.2	553.8
35°	509.6	514.2	524.8	535.5	540.1
37.5°	491.4	495.9	506.6	520.3	526.4
40°	470.1	476.2	489.9	508.1	511.2
42.5°	450.3	457.9	470.1	491.4	499.0
45°	427.5	435.1	451.8	474.6	486.8
47.5°	406.2	413.8	432.0	459.4	474.6
50°	380.3	391.0	413.8	445.7	461.0
52.5°	356.0	365.1	395.5	430.5	448.8
55°	330.1	340.8	377.3	415.3	435.1
57.5°	307.3	316.4	357.5	400.1	422.9
60°	278.4	290.6	337.7	383.4	406.2
62.5°	248.0	266.2	318.0	365.1	389.5
65°	219.1	240.4	299.7	346.9	371.2
67.5°	193.2	216.0	276.9	327.1	349.9
70°	162.8	191.7	254.1	302.7	328.6
72.5°	135.4	167.3	228.2	276.9	299.7
75°	108.0	143.0	202.3	243.4	257.1
77.5°	83.7	117.1	173.4	185.6	187.1
80°	62.4	92.8	129.3	130.8	135.4
82.5°	42.6	65.4	83.7	91.3	92.8
85°	27.4	38.0	47.2	48.7	51.7
87.5°	12.2	13.7	16.7	15.2	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)