

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: P312665

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CA08-W2A-U-3000K**

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: P312665
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-CA08-W2A-U-3000K
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: 1958.0 lumens
Efficiency: N/A
Efficacy: 71.2 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

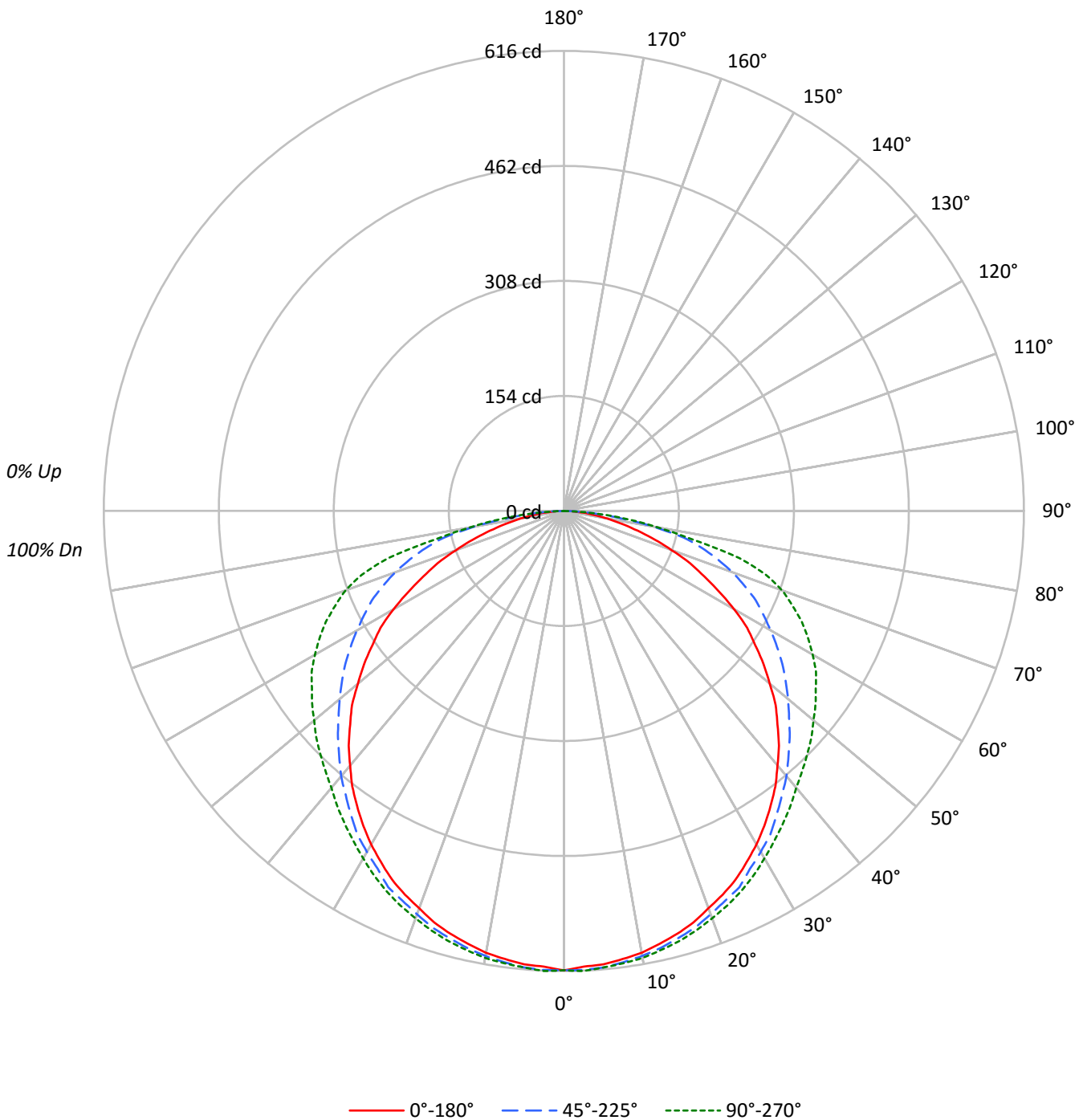
Input Watts (W): 27.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1655	1655	1655
5°	1646	1657	1657
10°	1641	1653	1661
15°	1633	1649	1661
20°	1621	1646	1662
25°	1617	1651	1668
30°	1602	1638	1670
35°	1585	1632	1680
40°	1564	1629	1700
45°	1540	1628	1754
50°	1508	1640	1827
55°	1467	1676	1932
60°	1419	1721	2070
65°	1321	1807	2238
70°	1212	1892	2448
75°	1064	1992	2531
80°	916	1897	1987
85°	800	1380	1513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.2	3.0
10°-20°	167.0	8.5
20°-30°	254.9	13.0
30°-40°	311.2	15.9
40°-50°	332.7	17.0
50°-60°	321.1	16.4
60°-70°	276.5	14.1
70°-80°	187.0	9.6
80°-90°	49.4	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°	480.1	24.5
0°-40°	791.3	40.4
0°-60°	1445.1	73.8
0°-90°	1958.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1958.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	609	611	614	614	614	58
15°	586	588	592	595	596	165
25°	544	547	556	559	562	251
35°	482	487	497	507	511	302
45°	405	412	428	449	461	312
55°	313	323	357	393	412	280
65°	207	228	284	328	352	206
75°	102	135	192	230	243	110
85°	26	36	45	46	49	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	615.0	615.0	615.0	615.0	615.0
2.5°	610.7	612.2	615.0	615.0	616.5
5°	609.3	610.7	613.6	613.6	613.6
7.5°	605.0	606.4	609.3	610.7	610.7
10°	600.6	602.1	605.0	606.4	607.8
12.5°	593.4	594.9	599.2	602.1	602.1
15°	586.2	587.7	592.0	594.9	596.3
17.5°	577.6	580.5	584.8	587.7	589.1
20°	566.1	568.9	574.7	579.0	580.5
22.5°	556.0	558.9	564.6	568.9	571.8
25°	544.5	547.3	556.0	558.9	561.7
27.5°	530.1	532.9	540.1	545.9	550.2
30°	515.7	518.5	527.2	534.4	537.3
32.5°	499.8	504.1	514.2	520.0	524.3
35°	482.5	486.8	496.9	507.0	511.3
37.5°	465.2	469.6	479.6	492.6	498.4
40°	445.1	450.8	463.8	481.1	484.0
42.5°	426.4	433.6	445.1	465.2	472.4
45°	404.7	411.9	427.8	449.4	460.9
47.5°	384.6	391.8	409.1	435.0	449.4
50°	360.1	370.2	391.8	422.0	436.4
52.5°	337.0	345.7	374.5	407.6	424.9
55°	312.6	322.6	357.2	393.2	411.9
57.5°	291.0	299.6	338.5	378.8	400.4
60°	263.6	275.1	319.8	363.0	384.6
62.5°	234.8	252.1	301.0	345.7	368.7
65°	207.4	227.6	283.8	328.4	351.5
67.5°	182.9	204.5	262.1	309.7	331.3
70°	154.1	181.5	240.5	286.6	311.1
72.5°	128.2	158.4	216.1	262.1	283.8
75°	102.3	135.4	191.6	230.5	243.4
77.5°	79.2	110.9	164.2	175.7	177.2
80°	59.1	87.9	122.4	123.9	128.2
82.5°	40.3	61.9	79.2	86.4	87.9
85°	25.9	36.0	44.7	46.1	49.0
87.5°	11.5	13.0	15.8	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)