

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: P312666

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CA08-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: P312666
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-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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: 2071.0 lumens
Efficiency: N/A
Efficacy: 75.0 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

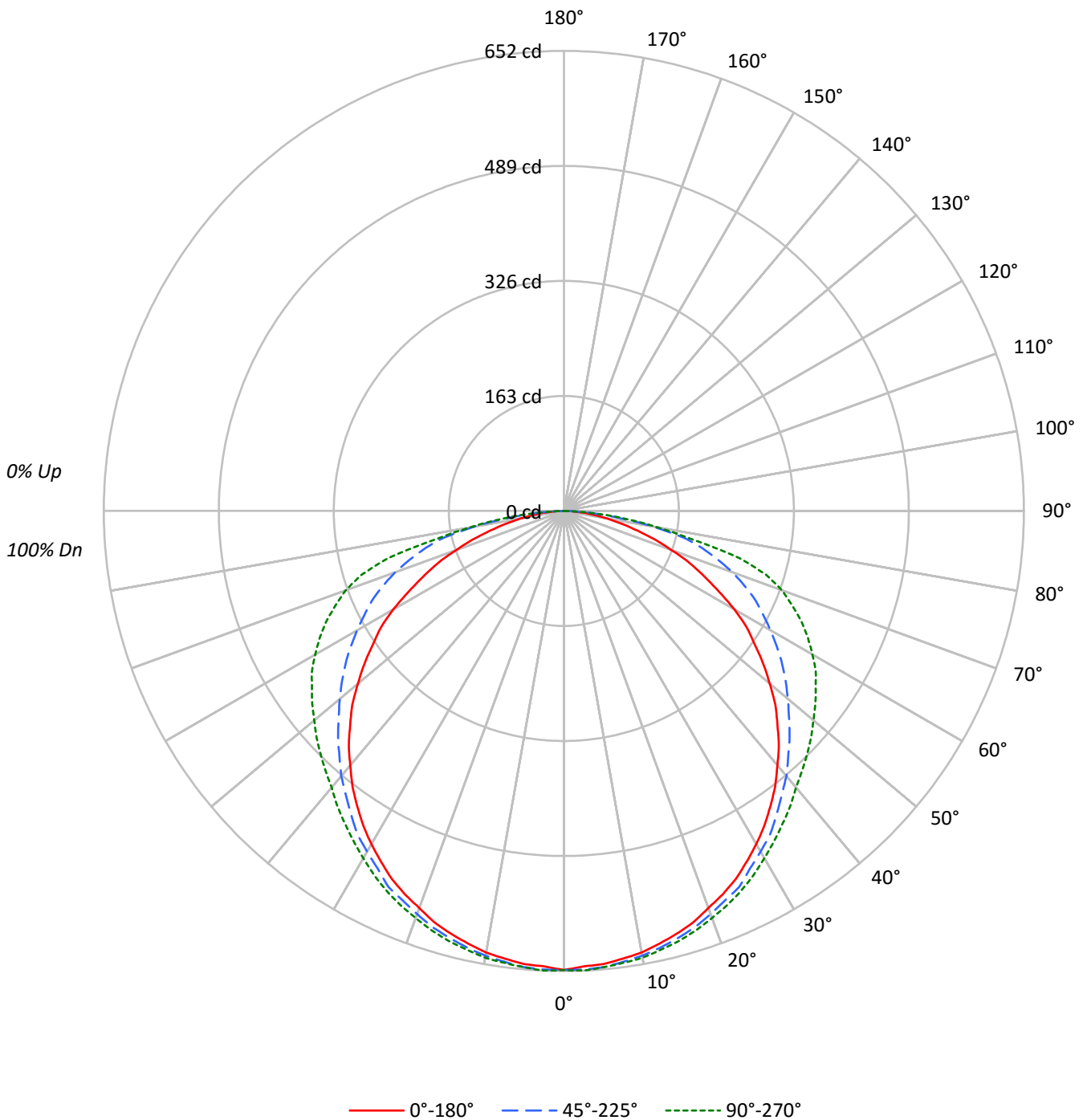
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1750	1750	1750
5°	1741	1753	1753
10°	1736	1749	1757
15°	1728	1745	1757
20°	1714	1741	1758
25°	1710	1746	1764
30°	1695	1733	1766
35°	1677	1727	1777
40°	1654	1723	1798
45°	1629	1722	1855
50°	1595	1735	1932
55°	1551	1772	2044
60°	1500	1820	2189
65°	1397	1911	2367
70°	1282	2002	2589
75°	1125	2106	2677
80°	969	2007	2101
85°	846	1457	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	3.0
10°-20°	176.7	8.5
20°-30°	269.6	13.0
30°-40°	329.1	15.9
40°-50°	351.9	17.0
50°-60°	339.7	16.4
60°-70°	292.4	14.1
70°-80°	197.8	9.6
80°-90°	52.2	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°	507.8	24.5
0°-40°	836.9	40.4
0°-60°	1528.5	73.8
0°-90°	2071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2071.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	644	646	649	649	649	61
15°	620	622	626	629	631	175
25°	576	579	588	591	594	265
35°	510	515	526	536	541	319
45°	428	436	452	475	488	330
55°	331	341	378	416	436	296
65°	219	241	300	347	372	218
75°	108	143	203	244	258	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°	650.5	650.5	650.5	650.5	650.5
2.5°	646.0	647.5	650.5	650.5	652.1
5°	644.4	646.0	649.0	649.0	649.0
7.5°	639.9	641.4	644.4	646.0	646.0
10°	635.3	636.8	639.9	641.4	642.9
12.5°	627.7	629.2	633.8	636.8	636.8
15°	620.1	621.6	626.2	629.2	630.7
17.5°	610.9	614.0	618.5	621.6	623.1
20°	598.7	601.8	607.9	612.4	614.0
22.5°	588.1	591.1	597.2	601.8	604.8
25°	575.9	578.9	588.1	591.1	594.2
27.5°	560.7	563.7	571.3	577.4	582.0
30°	545.4	548.5	557.6	565.2	568.3
32.5°	528.7	533.2	543.9	550.0	554.6
35°	510.4	514.9	525.6	536.3	540.8
37.5°	492.1	496.7	507.3	521.0	527.1
40°	470.8	476.9	490.6	508.9	511.9
42.5°	451.0	458.6	470.8	492.1	499.7
45°	428.1	435.7	452.5	475.3	487.5
47.5°	406.8	414.4	432.7	460.1	475.3
50°	380.9	391.5	414.4	446.4	461.6
52.5°	356.5	365.6	396.1	431.2	449.4
55°	330.6	341.3	377.8	415.9	435.7
57.5°	307.7	316.9	358.0	400.7	423.5
60°	278.8	291.0	338.2	383.9	406.8
62.5°	248.3	266.6	318.4	365.6	390.0
65°	219.4	240.7	300.1	347.4	371.7
67.5°	193.5	216.3	277.3	327.6	350.4
70°	163.0	192.0	254.4	303.2	329.1
72.5°	135.6	167.6	228.5	277.3	300.1
75°	108.2	143.2	202.6	243.8	257.5
77.5°	83.8	117.3	173.7	185.9	187.4
80°	62.5	92.9	129.5	131.0	135.6
82.5°	42.7	65.5	83.8	91.4	92.9
85°	27.4	38.1	47.2	48.8	51.8
87.5°	12.2	13.7	16.8	15.2	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)