

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: P308168

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-2700K**

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: P308168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 1788.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

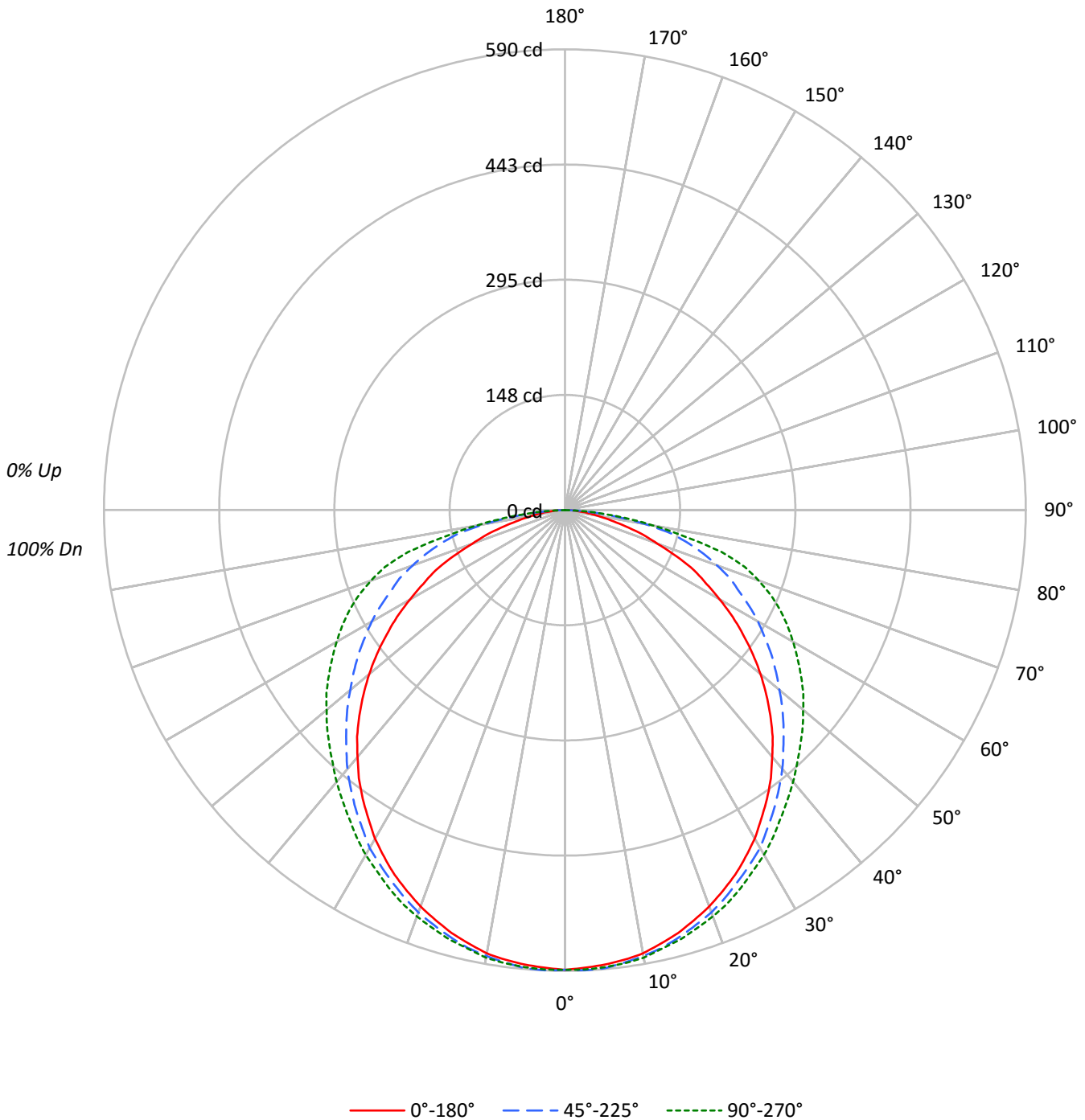
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1584	1584	1584
5°	1578	1591	1587
10°	1575	1584	1590
15°	1562	1577	1587
20°	1547	1570	1586
25°	1531	1557	1584
30°	1510	1553	1584
35°	1482	1534	1582
40°	1450	1521	1597
45°	1416	1507	1622
50°	1369	1502	1667
55°	1307	1514	1730
60°	1232	1536	1815
65°	1163	1566	1939
70°	994	1633	2076
75°	833	1700	2157
80°	682	1643	1801
85°	593	1220	1325



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.8	3.1
10°-20°	159.6	8.9
20°-30°	241.9	13.5
30°-40°	292.1	16.3
40°-50°	306.9	17.2
50°-60°	288.8	16.2
60°-70°	240.8	13.5
70°-80°	159.6	8.9
80°-90°	42.5	2.4
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°	457.3	25.6
0°-40°	749.4	41.9
0°-60°	1345.1	75.2
0°-90°	1788.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1788.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	584	585	589	589	588	56
15°	561	563	566	568	570	158
25°	516	519	524	531	534	237
35°	451	456	467	477	482	282
45°	372	378	396	416	426	287
55°	279	291	323	355	369	249
65°	183	198	246	286	304	178
75°	80	112	164	197	208	87
85°	19	29	40	43	43	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	588.8	588.8	588.8	588.8	588.8
2.5°	586.5	587.6	589.9	589.9	588.8
5°	584.3	585.4	588.8	588.8	587.6
7.5°	580.9	582.0	584.3	586.5	585.4
10°	576.4	577.5	579.7	582.0	582.0
12.5°	568.5	569.6	574.1	575.2	575.2
15°	560.6	562.8	566.2	568.5	569.6
17.5°	550.4	552.7	557.2	561.7	561.7
20°	540.3	542.5	548.2	552.7	553.8
22.5°	527.9	531.2	536.9	542.5	544.8
25°	515.5	518.8	524.5	531.2	533.5
27.5°	500.8	504.2	512.1	520.0	521.1
30°	486.1	489.5	499.7	506.4	509.8
32.5°	468.1	472.6	482.7	492.9	496.3
35°	451.2	455.7	467.0	477.1	481.6
37.5°	433.1	437.6	450.0	462.4	468.1
40°	412.8	418.5	433.1	446.7	454.5
42.5°	393.6	399.3	413.9	432.0	439.9
45°	372.2	377.8	395.9	416.2	426.3
47.5°	349.7	356.4	377.8	402.7	412.8
50°	327.1	335.0	358.7	386.9	398.2
52.5°	303.4	313.6	340.6	371.1	384.6
55°	278.6	291.0	322.6	355.3	368.8
57.5°	254.9	266.2	303.4	338.4	353.0
60°	229.0	243.6	285.4	321.5	337.2
62.5°	204.2	219.9	266.2	304.5	321.5
65°	182.7	198.5	245.9	286.5	304.5
67.5°	154.5	176.0	229.0	267.3	285.4
70°	126.3	155.7	207.5	247.0	263.9
72.5°	104.9	133.1	186.1	225.6	241.4
75°	80.1	111.7	163.5	197.4	207.5
77.5°	59.8	92.5	139.9	156.8	157.9
80°	44.0	71.1	106.0	111.7	116.2
82.5°	30.5	49.6	68.8	75.6	77.8
85°	19.2	29.3	39.5	42.9	42.9
87.5°	10.2	11.3	13.5	13.5	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)