

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: P312647

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-RDP-CA125-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: P312647
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: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 1798.0 lumens
Efficiency: N/A
Efficacy: 78.5 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

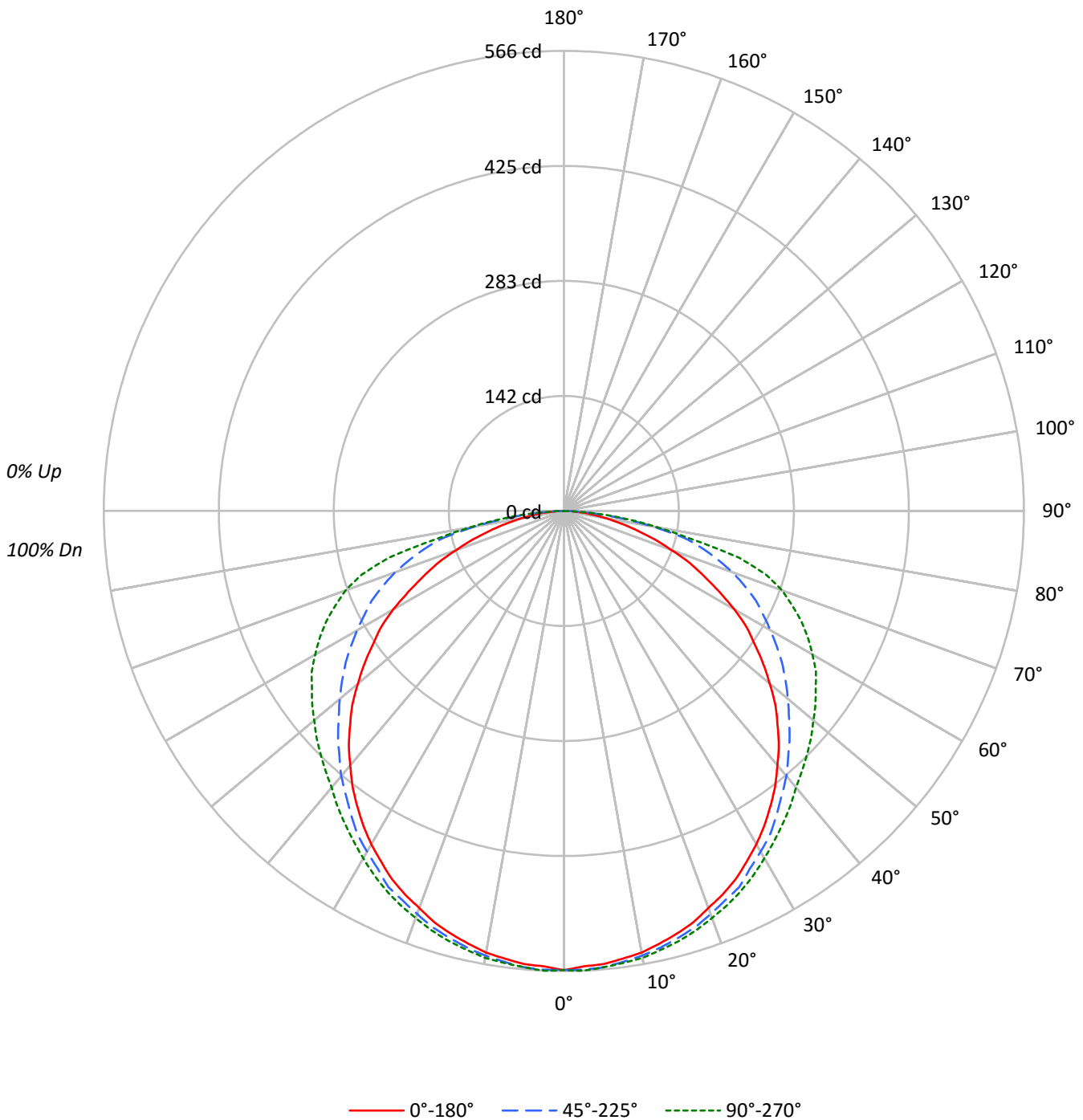
Input Watts (W): 22.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312647

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P312647

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-4000K

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°	1520	1520	1520
5°	1511	1522	1522
10°	1507	1518	1525
15°	1500	1514	1526
20°	1489	1511	1526
25°	1485	1516	1531
30°	1471	1504	1533
35°	1456	1499	1543
40°	1436	1496	1561
45°	1415	1495	1611
50°	1384	1506	1678
55°	1346	1539	1775
60°	1302	1580	1901
65°	1213	1659	2055
70°	1113	1738	2248
75°	976	1829	2324
80°	840	1742	1824
85°	735	1266	1389



TEST NUMBER: P312647

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.4	3.0
10°-20°	153.4	8.5
20°-30°	234.0	13.0
30°-40°	285.8	15.9
40°-50°	305.5	17.0
50°-60°	294.9	16.4
60°-70°	253.9	14.1
70°-80°	171.8	9.6
80°-90°	45.3	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°	440.9	24.5
0°-40°	726.6	40.4
0°-60°	1327.1	73.8
0°-90°	1798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1798.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	565	565	565	565	565	
5°	560	561	564	564	564	53
15°	538	540	544	546	548	152
25°	500	503	511	513	516	230
35°	443	447	456	466	470	277
45°	372	378	393	413	423	287
55°	287	296	328	361	378	257
65°	190	209	261	302	323	189
75°	94	124	176	212	224	101
85°	24	33	41	42	45	27
90°	0	0	0	0	0	



TEST NUMBER: P312647

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	564.8	564.8	564.8	564.8	564.8
2.5°	560.8	562.1	564.8	564.8	566.1
5°	559.5	560.8	563.5	563.5	563.5
7.5°	555.5	556.8	559.5	560.8	560.8
10°	551.6	552.9	555.5	556.8	558.2
12.5°	544.9	546.3	550.2	552.9	552.9
15°	538.3	539.7	543.6	546.3	547.6
17.5°	530.4	533.0	537.0	539.7	541.0
20°	519.8	522.5	527.7	531.7	533.0
22.5°	510.6	513.2	518.5	522.5	525.1
25°	500.0	502.6	510.6	513.2	515.8
27.5°	486.7	489.4	496.0	501.3	505.3
30°	473.5	476.2	484.1	490.7	493.4
32.5°	459.0	462.9	472.2	477.5	481.5
35°	443.1	447.1	456.3	465.6	469.6
37.5°	427.2	431.2	440.5	452.4	457.6
40°	408.7	414.0	425.9	441.8	444.4
42.5°	391.5	398.1	408.7	427.2	433.8
45°	371.7	378.3	392.8	412.7	423.3
47.5°	353.2	359.8	375.6	399.4	412.7
50°	330.7	339.9	359.8	387.5	400.8
52.5°	309.5	317.4	343.9	374.3	390.2
55°	287.0	296.3	328.0	361.1	378.3
57.5°	267.2	275.1	310.8	347.9	367.7
60°	242.0	252.6	293.6	333.3	353.2
62.5°	215.6	231.5	276.4	317.4	338.6
65°	190.5	209.0	260.6	301.6	322.7
67.5°	168.0	187.8	240.7	284.4	304.2
70°	141.5	166.7	220.9	263.2	285.7
72.5°	117.7	145.5	198.4	240.7	260.6
75°	93.9	124.3	175.9	211.6	223.5
77.5°	72.7	101.8	150.8	161.4	162.7
80°	54.2	80.7	112.4	113.8	117.7
82.5°	37.0	56.9	72.7	79.4	80.7
85°	23.8	33.1	41.0	42.3	45.0
87.5°	10.6	11.9	14.5	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)