

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: P312646

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-RDP-CA125-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: P312646
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-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 1712.0 lumens
Efficiency: N/A
Efficacy: 76.4 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

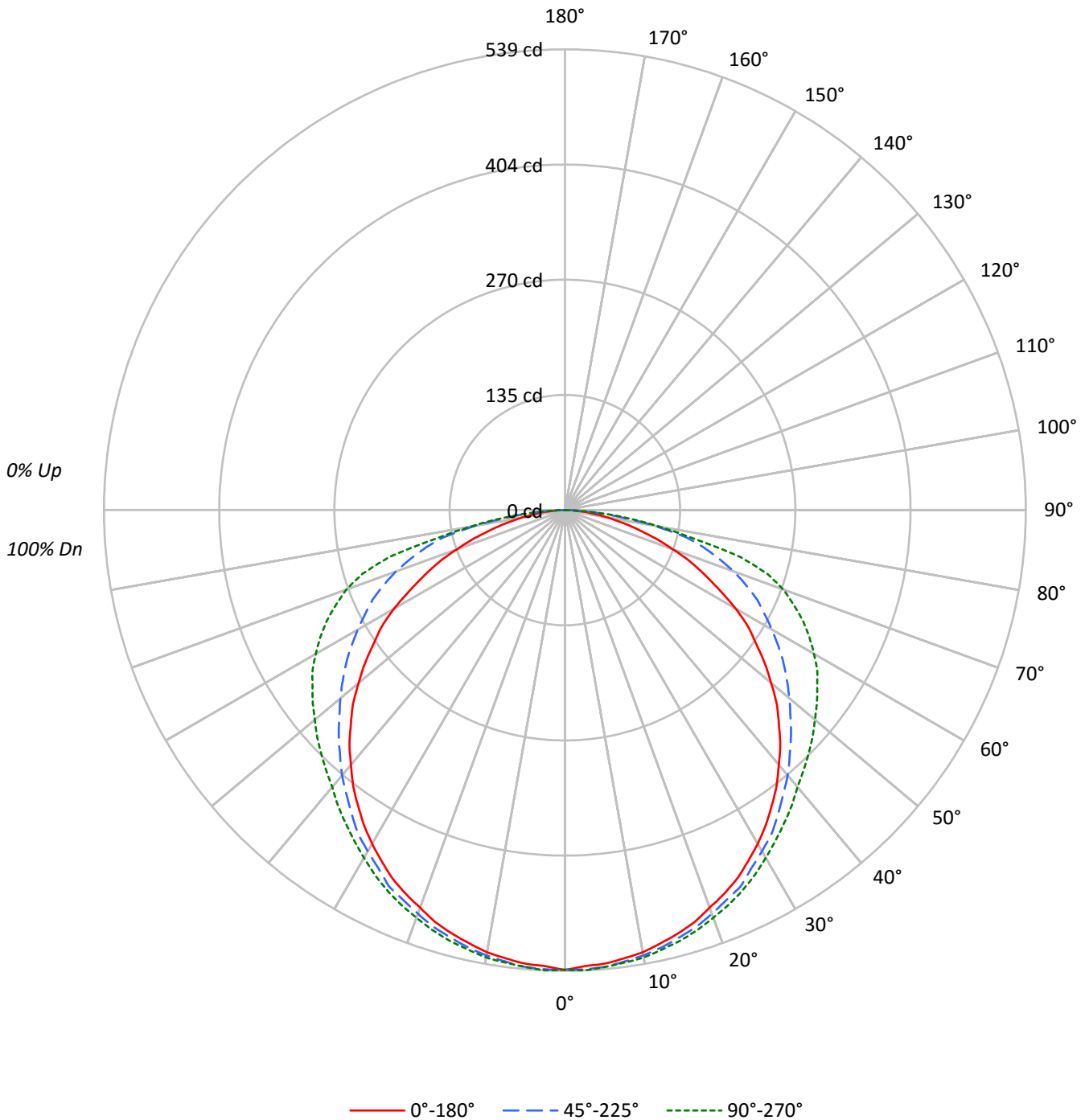
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312646

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P312646

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-3500K

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°	1447	1447	1447
5°	1439	1449	1449
10°	1435	1445	1452
15°	1428	1442	1453
20°	1417	1439	1453
25°	1414	1443	1458
30°	1401	1432	1460
35°	1386	1427	1469
40°	1367	1424	1487
45°	1347	1423	1534
50°	1318	1434	1598
55°	1282	1465	1690
60°	1241	1505	1810
65°	1155	1580	1957
70°	1061	1655	2140
75°	930	1742	2213
80°	800	1660	1737
85°	701	1204	1321



TEST NUMBER: P312646

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.9	3.0
10°-20°	146.1	8.5
20°-30°	222.8	13.0
30°-40°	272.1	15.9
40°-50°	290.9	17.0
50°-60°	280.8	16.4
60°-70°	241.7	14.1
70°-80°	163.5	9.6
80°-90°	43.2	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°	419.8	24.5
0°-40°	691.8	40.4
0°-60°	1263.6	73.8
0°-90°	1712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	538	538	538	538	538	
5°	533	534	536	536	536	51
15°	513	514	518	520	521	145
25°	476	479	486	489	491	219
35°	422	426	434	443	447	264
45°	354	360	374	393	403	273
55°	273	282	312	344	360	245
65°	181	199	248	287	307	180
75°	89	118	168	202	213	96
85°	23	32	39	40	43	26
90°	0	0	0	0	0	



TEST NUMBER: P312646

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CA125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	537.8	537.8	537.8	537.8	537.8
2.5°	534.0	535.3	537.8	537.8	539.0
5°	532.7	534.0	536.5	536.5	536.5
7.5°	529.0	530.2	532.7	534.0	534.0
10°	525.2	526.4	529.0	530.2	531.5
12.5°	518.9	520.1	523.9	526.4	526.4
15°	512.6	513.8	517.6	520.1	521.4
17.5°	505.0	507.5	511.3	513.8	515.1
20°	494.9	497.5	502.5	506.3	507.5
22.5°	486.1	488.7	493.7	497.5	500.0
25°	476.1	478.6	486.1	488.7	491.2
27.5°	463.5	466.0	472.3	477.3	481.1
30°	450.9	453.4	460.9	467.2	469.8
32.5°	437.0	440.8	449.6	454.6	458.4
35°	421.9	425.7	434.5	443.3	447.1
37.5°	406.8	410.6	419.4	430.7	435.8
40°	389.2	394.2	405.5	420.6	423.2
42.5°	372.8	379.1	389.2	406.8	413.1
45°	353.9	360.2	374.0	392.9	403.0
47.5°	336.3	342.6	357.7	380.3	392.9
50°	314.9	323.7	342.6	369.0	381.6
52.5°	294.7	302.3	327.4	356.4	371.5
55°	273.3	282.1	312.3	343.8	360.2
57.5°	254.4	262.0	296.0	331.2	350.1
60°	230.5	240.5	279.6	317.4	336.3
62.5°	205.3	220.4	263.2	302.3	322.4
65°	181.4	199.0	248.1	287.1	307.3
67.5°	159.9	178.8	229.2	270.8	289.7
70°	134.8	158.7	210.3	250.6	272.0
72.5°	112.1	138.5	188.9	229.2	248.1
75°	89.4	118.4	167.5	201.5	212.8
77.5°	69.3	97.0	143.6	153.6	154.9
80°	51.6	76.8	107.1	108.3	112.1
82.5°	35.3	54.2	69.3	75.6	76.8
85°	22.7	31.5	39.0	40.3	42.8
87.5°	10.1	11.3	13.9	12.6	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)