

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: P308429

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CA125-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: P308429
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-L82765-RDP-CA125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 1571.0 lumens
Efficiency: N/A
Efficacy: 70.1 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

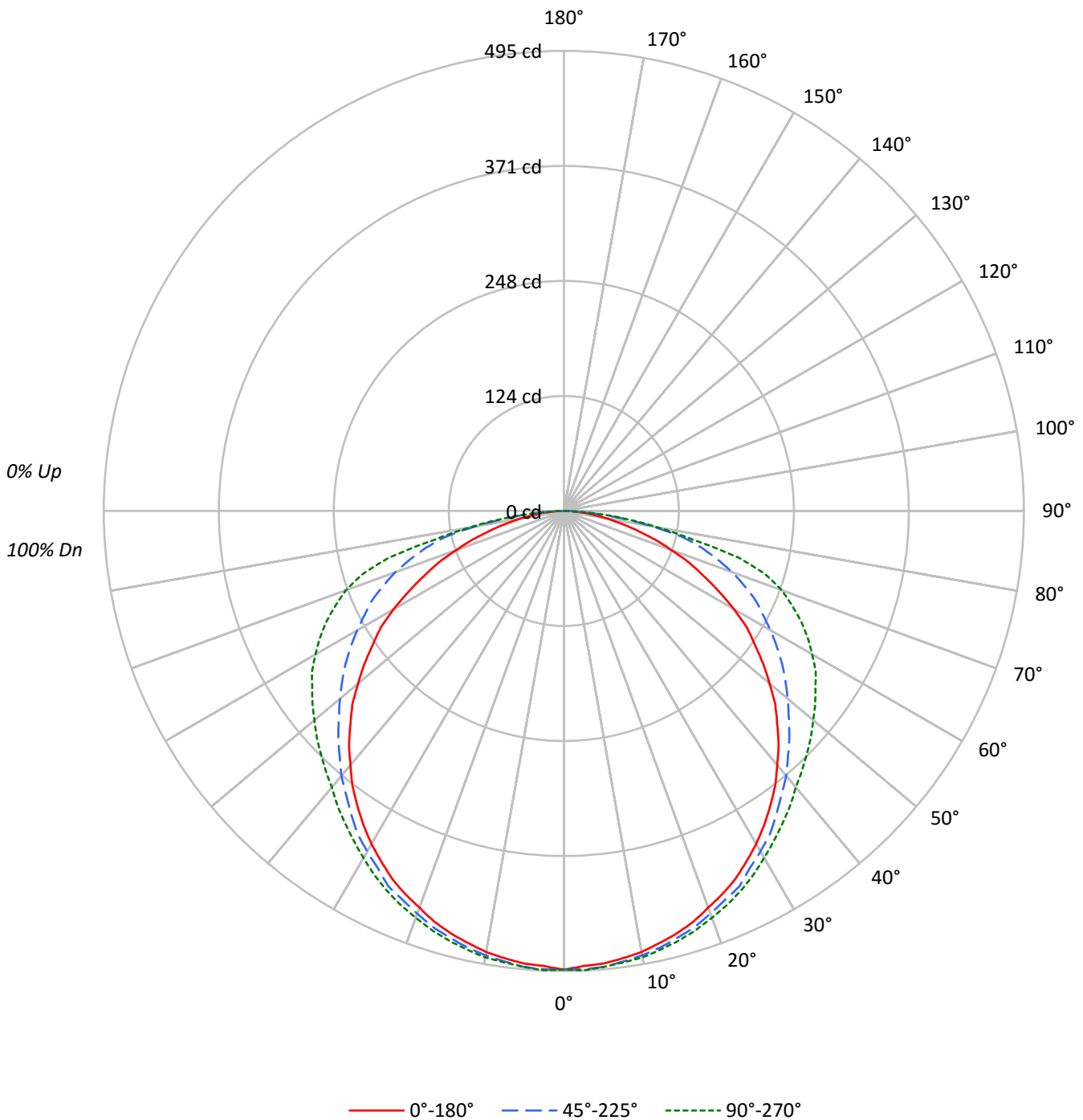
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308429

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CA125-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P308429

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CA125-W2A-U-2700K

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82				82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67				67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55				55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47				47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40				40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35				35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31				31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27				27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24				24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1328	1328	1328
5°	1321	1330	1330
10°	1317	1326	1333
15°	1310	1323	1333
20°	1301	1320	1334
25°	1297	1325	1338
30°	1285	1314	1340
35°	1272	1310	1348
40°	1254	1307	1364
45°	1236	1306	1407
50°	1209	1316	1466
55°	1177	1345	1551
60°	1138	1381	1661
65°	1060	1450	1796
70°	973	1519	1964
75°	854	1598	2031
80°	735	1522	1595
85°	642	1105	1213



TEST NUMBER: P308429

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CA125-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	3.0
10°-20°	134.0	8.5
20°-30°	204.5	13.0
30°-40°	249.7	15.9
40°-50°	267.0	17.0
50°-60°	257.7	16.4
60°-70°	221.8	14.1
70°-80°	150.1	9.6
80°-90°	39.6	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°	385.2	24.5
0°-40°	634.9	40.4
0°-60°	1159.5	73.8
0°-90°	1571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1571.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	489	490	492	492	492	46
15°	470	472	475	477	478	133
25°	437	439	446	448	451	201
35°	387	391	399	407	410	242
45°	325	330	343	361	370	251
55°	251	259	287	316	330	225
65°	166	183	228	264	282	166
75°	82	109	154	185	195	88
85°	21	29	36	37	39	23
90°	0	0	0	0	0	



TEST NUMBER: P308429

CATALOG NUMBER: 22FC22-29HE-UNV-L82765-RDP-CA125-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	493.5	493.5	493.5	493.5	493.5
2.5°	490.0	491.2	493.5	493.5	494.6
5°	488.9	490.0	492.3	492.3	492.3
7.5°	485.4	486.5	488.9	490.0	490.0
10°	481.9	483.1	485.4	486.5	487.7
12.5°	476.1	477.3	480.8	483.1	483.1
15°	470.4	471.5	475.0	477.3	478.5
17.5°	463.4	465.7	469.2	471.5	472.7
20°	454.2	456.5	461.1	464.6	465.7
22.5°	446.1	448.4	453.0	456.5	458.8
25°	436.8	439.2	446.1	448.4	450.7
27.5°	425.3	427.6	433.4	438.0	441.5
30°	413.7	416.0	423.0	428.8	431.1
32.5°	401.0	404.5	412.6	417.2	420.7
35°	387.2	390.6	398.7	406.8	410.3
37.5°	373.3	376.8	384.8	395.2	399.9
40°	357.1	361.7	372.1	386.0	388.3
42.5°	342.1	347.9	357.1	373.3	379.1
45°	324.7	330.5	343.2	360.6	369.8
47.5°	308.6	314.3	328.2	349.0	360.6
50°	288.9	297.0	314.3	338.6	350.2
52.5°	270.4	277.4	300.5	327.1	340.9
55°	250.8	258.9	286.6	315.5	330.5
57.5°	233.4	240.4	271.6	303.9	321.3
60°	211.5	220.7	256.6	291.2	308.6
62.5°	188.4	202.2	241.5	277.4	295.9
65°	166.4	182.6	227.7	263.5	282.0
67.5°	146.8	164.1	210.3	248.5	265.8
70°	123.7	145.6	193.0	230.0	249.6
72.5°	102.9	127.1	173.4	210.3	227.7
75°	82.1	108.6	153.7	184.9	195.3
77.5°	63.6	89.0	131.7	141.0	142.1
80°	47.4	70.5	98.2	99.4	102.9
82.5°	32.4	49.7	63.6	69.3	70.5
85°	20.8	28.9	35.8	37.0	39.3
87.5°	9.2	10.4	12.7	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)