

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: P308176

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P308176
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-6500K
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: 2037.0 lumens
Efficiency: N/A
Efficacy: 87.1 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

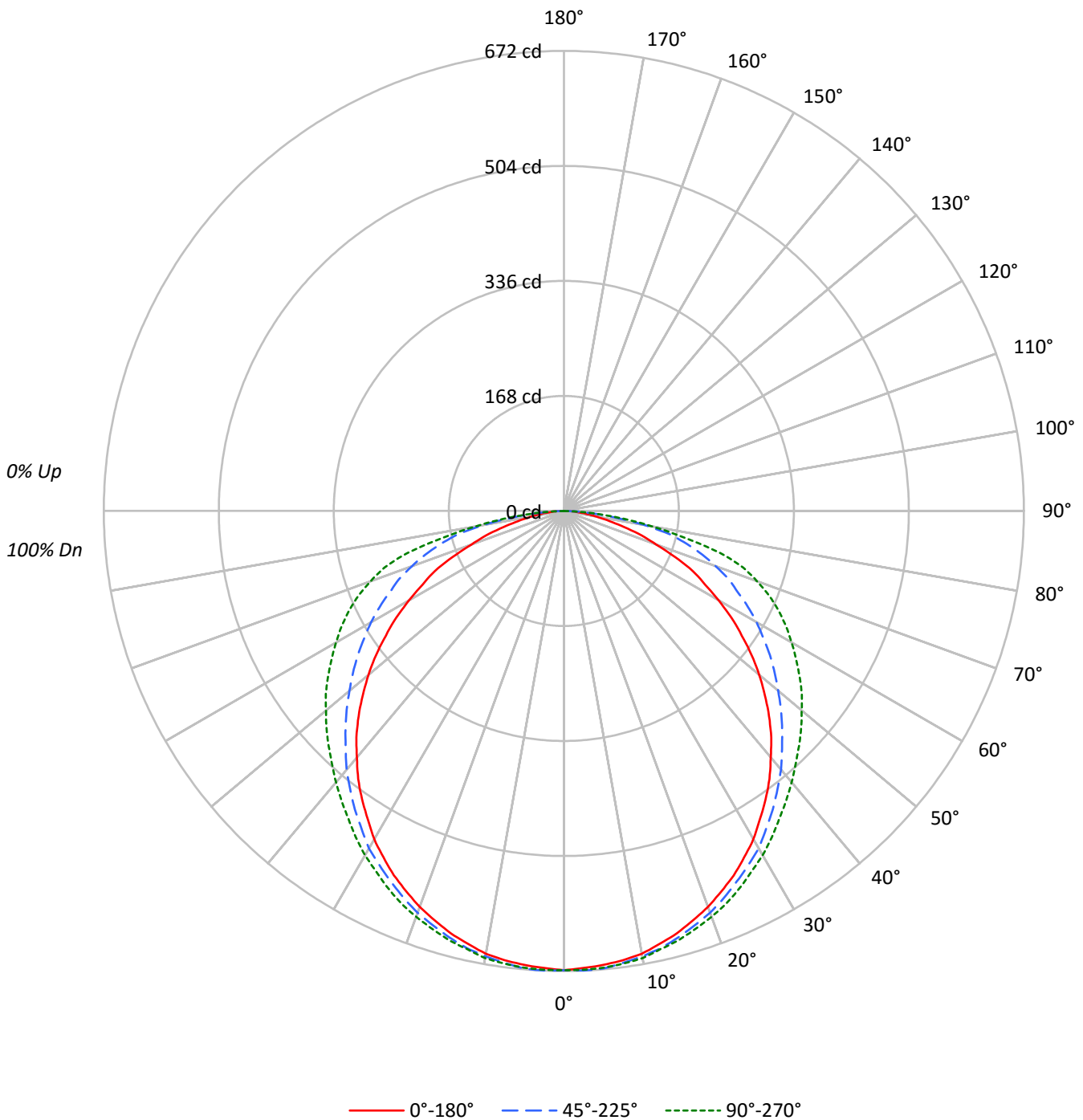
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308176

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-6500K

Luminous Intensity Polar Plot





TEST NUMBER: P308176

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-6500K

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°	1805	1805	1805
5°	1798	1812	1808
10°	1794	1805	1812
15°	1779	1797	1808
20°	1763	1788	1807
25°	1743	1774	1805
30°	1721	1769	1805
35°	1689	1748	1803
40°	1652	1733	1819
45°	1614	1716	1848
50°	1560	1711	1899
55°	1489	1724	1971
60°	1404	1750	2068
65°	1326	1784	2209
70°	1132	1860	2366
75°	948	1937	2458
80°	776	1872	2052
85°	673	1389	1507



TEST NUMBER: P308176

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-6500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	3.1
10°-20°	181.8	8.9
20°-30°	275.6	13.5
30°-40°	332.8	16.3
40°-50°	349.7	17.2
50°-60°	329.0	16.2
60°-70°	274.3	13.5
70°-80°	181.8	8.9
80°-90°	48.4	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°	521.0	25.6
0°-40°	853.8	41.9
0°-60°	1532.5	75.2
0°-90°	2037.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2037.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	671	671	671	671	671	
5°	666	667	671	671	670	63
15°	639	641	645	648	649	180
25°	587	591	598	605	608	270
35°	514	519	532	544	549	321
45°	424	430	451	474	486	327
55°	317	332	368	405	420	284
65°	208	226	280	326	347	203
75°	91	127	186	225	236	99
85°	22	33	45	49	49	25
90°	0	0	0	0	0	



TEST NUMBER: P308176

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-6500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	670.8	670.8	670.8	670.8	670.8
2.5°	668.2	669.5	672.0	672.0	670.8
5°	665.6	666.9	670.8	670.8	669.5
7.5°	661.8	663.1	665.6	668.2	666.9
10°	656.6	657.9	660.5	663.1	663.1
12.5°	647.6	648.9	654.1	655.3	655.3
15°	638.6	641.2	645.1	647.6	648.9
17.5°	627.1	629.6	634.8	639.9	639.9
20°	615.5	618.1	624.5	629.6	630.9
22.5°	601.4	605.2	611.7	618.1	620.6
25°	587.2	591.1	597.5	605.2	607.8
27.5°	570.5	574.4	583.4	592.4	593.7
30°	553.8	557.7	569.2	577.0	580.8
32.5°	533.3	538.4	550.0	561.5	565.4
35°	514.0	519.1	532.0	543.5	548.7
37.5°	493.4	498.6	512.7	526.8	533.3
40°	470.3	476.7	493.4	508.9	517.8
42.5°	448.5	454.9	471.6	492.1	501.1
45°	424.0	430.5	451.0	474.2	485.7
47.5°	398.3	406.1	430.5	458.7	470.3
50°	372.6	381.6	408.6	440.7	453.6
52.5°	345.7	357.2	388.1	422.8	438.2
55°	317.4	331.5	367.5	404.8	420.2
57.5°	290.4	303.3	345.7	385.5	402.2
60°	260.9	277.6	325.1	366.2	384.2
62.5°	232.6	250.6	303.3	346.9	366.2
65°	208.2	226.2	280.1	326.4	346.9
67.5°	176.0	200.5	260.9	304.5	325.1
70°	143.9	177.3	236.4	281.4	300.7
72.5°	119.5	151.6	212.0	257.0	275.0
75°	91.2	127.2	186.3	224.9	236.4
77.5°	68.1	105.4	159.3	178.6	179.9
80°	50.1	81.0	120.8	127.2	132.4
82.5°	34.7	56.5	78.4	86.1	88.7
85°	21.8	33.4	45.0	48.8	48.8
87.5°	11.6	12.8	15.4	15.4	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)