

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: P308458

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CP250-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: P308458
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-CP250-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 1558.0 lumens
Efficiency: N/A
Efficacy: 69.2 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

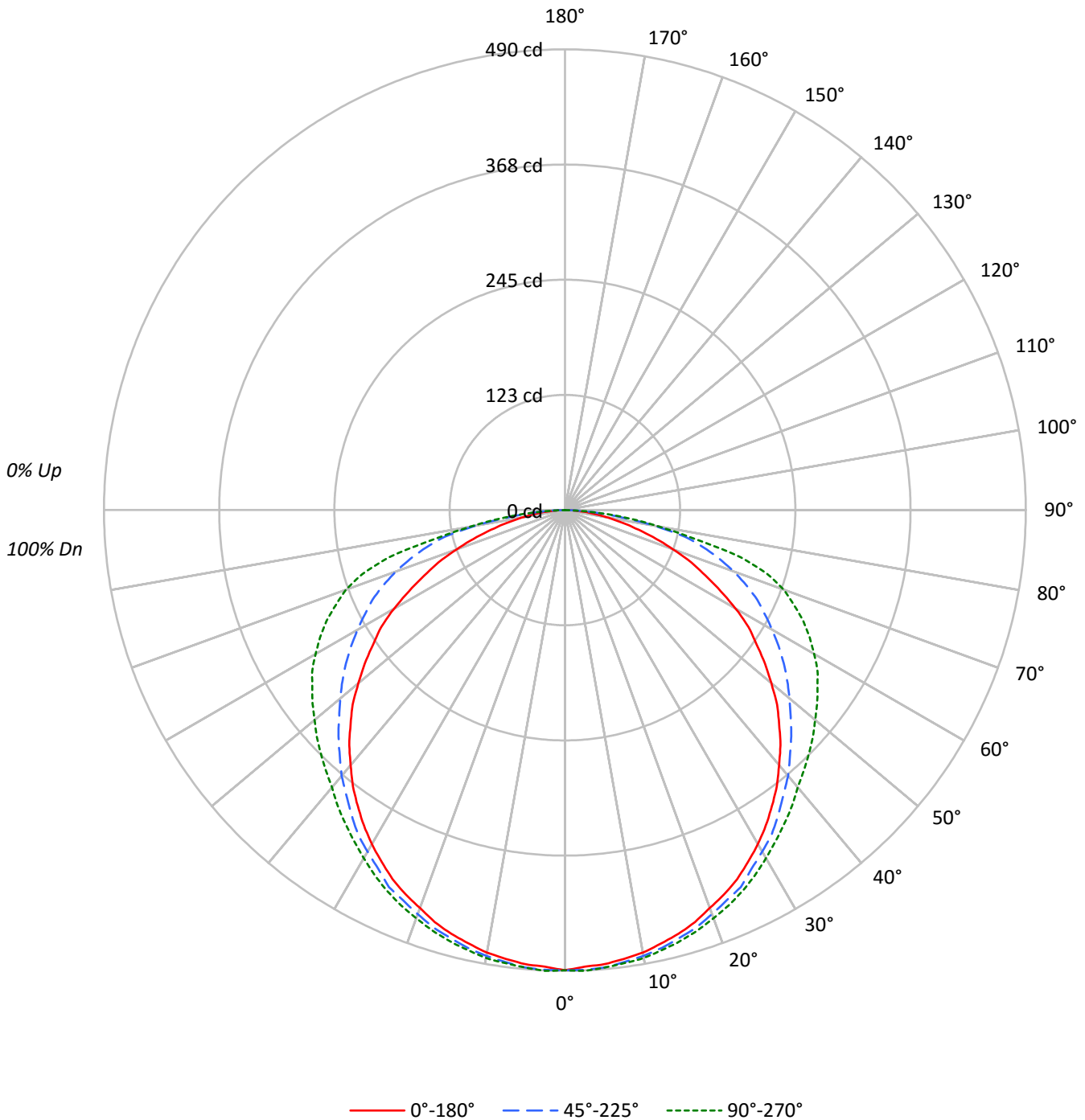
Input Watts (W): 22.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308458

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P308458

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CP250-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°	1317	1317	1317
5°	1310	1319	1319
10°	1306	1315	1322
15°	1300	1312	1322
20°	1290	1310	1323
25°	1286	1314	1327
30°	1275	1304	1328
35°	1261	1299	1337
40°	1244	1297	1353
45°	1226	1295	1396
50°	1199	1305	1454
55°	1167	1333	1538
60°	1129	1369	1647
65°	1051	1438	1781
70°	965	1506	1948
75°	846	1585	2014
80°	728	1509	1581
85°	636	1096	1204



TEST NUMBER: P308458

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.3	3.0
10°-20°	132.9	8.5
20°-30°	202.8	13.0
30°-40°	247.6	15.9
40°-50°	264.8	17.0
50°-60°	255.5	16.4
60°-70°	220.0	14.1
70°-80°	148.8	9.6
80°-90°	39.3	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°	382.0	24.5
0°-40°	629.6	40.4
0°-60°	1149.9	73.8
0°-90°	1558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	489	489	489	489	489	
5°	485	486	488	488	488	46
15°	466	468	471	473	474	132
25°	433	436	442	445	447	199
35°	384	387	395	403	407	240
45°	322	328	340	358	367	249
55°	249	257	284	313	328	223
65°	165	181	226	261	280	164
75°	81	108	152	183	194	87
85°	21	29	36	37	39	23
90°	0	0	0	0	0	



TEST NUMBER: P308458

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-RDP-CP250-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	489.4	489.4	489.4	489.4	489.4
2.5°	486.0	487.1	489.4	489.4	490.5
5°	484.8	486.0	488.2	488.2	488.2
7.5°	481.4	482.5	484.8	486.0	486.0
10°	477.9	479.1	481.4	482.5	483.7
12.5°	472.2	473.3	476.8	479.1	479.1
15°	466.5	467.6	471.1	473.3	474.5
17.5°	459.6	461.9	465.3	467.6	468.8
20°	450.4	452.7	457.3	460.7	461.9
22.5°	442.4	444.7	449.3	452.7	455.0
25°	433.2	435.5	442.4	444.7	447.0
27.5°	421.8	424.1	429.8	434.4	437.8
30°	410.3	412.6	419.5	425.2	427.5
32.5°	397.7	401.1	409.2	413.8	417.2
35°	384.0	387.4	395.4	403.4	406.9
37.5°	370.2	373.6	381.7	392.0	396.6
40°	354.2	358.7	369.1	382.8	385.1
42.5°	339.3	345.0	354.2	370.2	375.9
45°	322.1	327.8	340.4	357.6	366.8
47.5°	306.0	311.7	325.5	346.1	357.6
50°	286.5	294.6	311.7	335.8	347.3
52.5°	268.2	275.1	298.0	324.4	338.1
55°	248.7	256.7	284.2	312.9	327.8
57.5°	231.5	238.4	269.3	301.4	318.6
60°	209.7	218.9	254.4	288.8	306.0
62.5°	186.8	200.6	239.5	275.1	293.4
65°	165.0	181.1	225.8	261.3	279.7
67.5°	145.6	162.7	208.6	246.4	263.6
70°	122.6	144.4	191.4	228.1	247.6
72.5°	102.0	126.1	171.9	208.6	225.8
75°	81.4	107.7	152.4	183.4	193.7
77.5°	63.0	88.3	130.7	139.8	141.0
80°	47.0	69.9	97.4	98.6	102.0
82.5°	32.1	49.3	63.0	68.8	69.9
85°	20.6	28.7	35.5	36.7	39.0
87.5°	9.2	10.3	12.6	11.5	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)