

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: P308387

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-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: P308387
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: 22FCZ2-24HE-UNV-L82765-RDP-CA125-W2A-U-4000K
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: 1462.0 lumens
Efficiency: N/A
Efficacy: 76.5 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

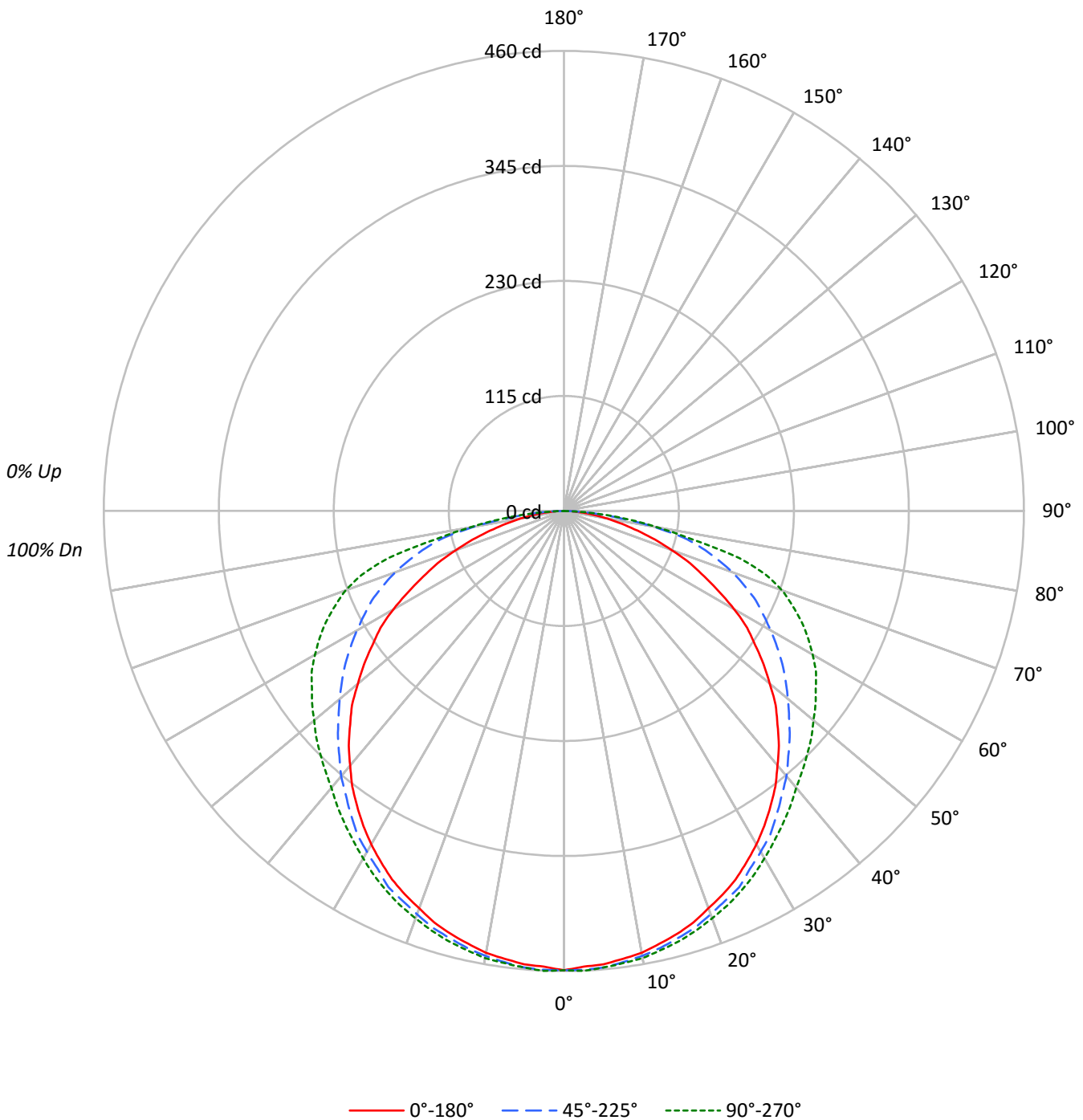
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308387

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P308387

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-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°	1236	1236	1236
5°	1229	1238	1238
10°	1226	1234	1240
15°	1219	1231	1241
20°	1210	1229	1241
25°	1207	1233	1245
30°	1196	1223	1247
35°	1184	1219	1254
40°	1167	1216	1270
45°	1150	1216	1310
50°	1126	1225	1364
55°	1095	1251	1443
60°	1059	1285	1546
65°	986	1349	1671
70°	906	1413	1828
75°	794	1487	1890
80°	683	1416	1483
85°	599	1028	1130



TEST NUMBER: P308387

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.4	3.0
10°-20°	124.7	8.5
20°-30°	190.3	13.0
30°-40°	232.3	15.9
40°-50°	248.4	17.0
50°-60°	239.8	16.4
60°-70°	206.4	14.1
70°-80°	139.7	9.6
80°-90°	36.9	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°	358.5	24.5
0°-40°	590.8	40.4
0°-60°	1079.0	73.8
0°-90°	1462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1462.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	459	459	459	459	459	
5°	455	456	458	458	458	43
15°	438	439	442	444	445	123
25°	406	409	415	417	419	187
35°	360	364	371	379	382	225
45°	302	308	319	336	344	233
55°	233	241	267	294	308	209
65°	155	170	212	245	262	154
75°	76	101	143	172	182	82
85°	19	27	33	34	37	22
90°	0	0	0	0	0	



TEST NUMBER: P308387

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.2	459.2	459.2	459.2	459.2
2.5°	456.0	457.1	459.2	459.2	460.3
5°	454.9	456.0	458.2	458.2	458.2
7.5°	451.7	452.8	454.9	456.0	456.0
10°	448.5	449.6	451.7	452.8	453.9
12.5°	443.1	444.2	447.4	449.6	449.6
15°	437.7	438.8	442.0	444.2	445.3
17.5°	431.3	433.4	436.7	438.8	439.9
20°	422.7	424.8	429.1	432.4	433.4
22.5°	415.1	417.3	421.6	424.8	427.0
25°	406.5	408.7	415.1	417.3	419.4
27.5°	395.8	397.9	403.3	407.6	410.8
30°	385.0	387.2	393.6	399.0	401.2
32.5°	373.2	376.4	384.0	388.3	391.5
35°	360.3	363.5	371.0	378.6	381.8
37.5°	347.4	350.6	358.1	367.8	372.1
40°	332.3	336.6	346.3	359.2	361.4
42.5°	318.3	323.7	332.3	347.4	352.8
45°	302.2	307.6	319.4	335.6	344.2
47.5°	287.2	292.5	305.4	324.8	335.6
50°	268.9	276.4	292.5	315.1	325.9
52.5°	251.7	258.1	279.6	304.4	317.3
55°	233.4	240.9	266.7	293.6	307.6
57.5°	217.3	223.7	252.7	282.9	299.0
60°	196.8	205.4	238.8	271.0	287.2
62.5°	175.3	188.2	224.8	258.1	275.3
65°	154.9	169.9	211.9	245.2	262.4
67.5°	136.6	152.7	195.7	231.2	247.4
70°	115.1	135.5	179.6	214.0	232.3
72.5°	95.7	118.3	161.3	195.7	211.9
75°	76.4	101.1	143.0	172.1	181.8
77.5°	59.2	82.8	122.6	131.2	132.3
80°	44.1	65.6	91.4	92.5	95.7
82.5°	30.1	46.2	59.2	64.5	65.6
85°	19.4	26.9	33.3	34.4	36.6
87.5°	8.6	9.7	11.8	10.8	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)