

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: P308381

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5500K**

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: P308381
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-CA08-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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: 1528.0 lumens
Efficiency: N/A
Efficacy: 78.8 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

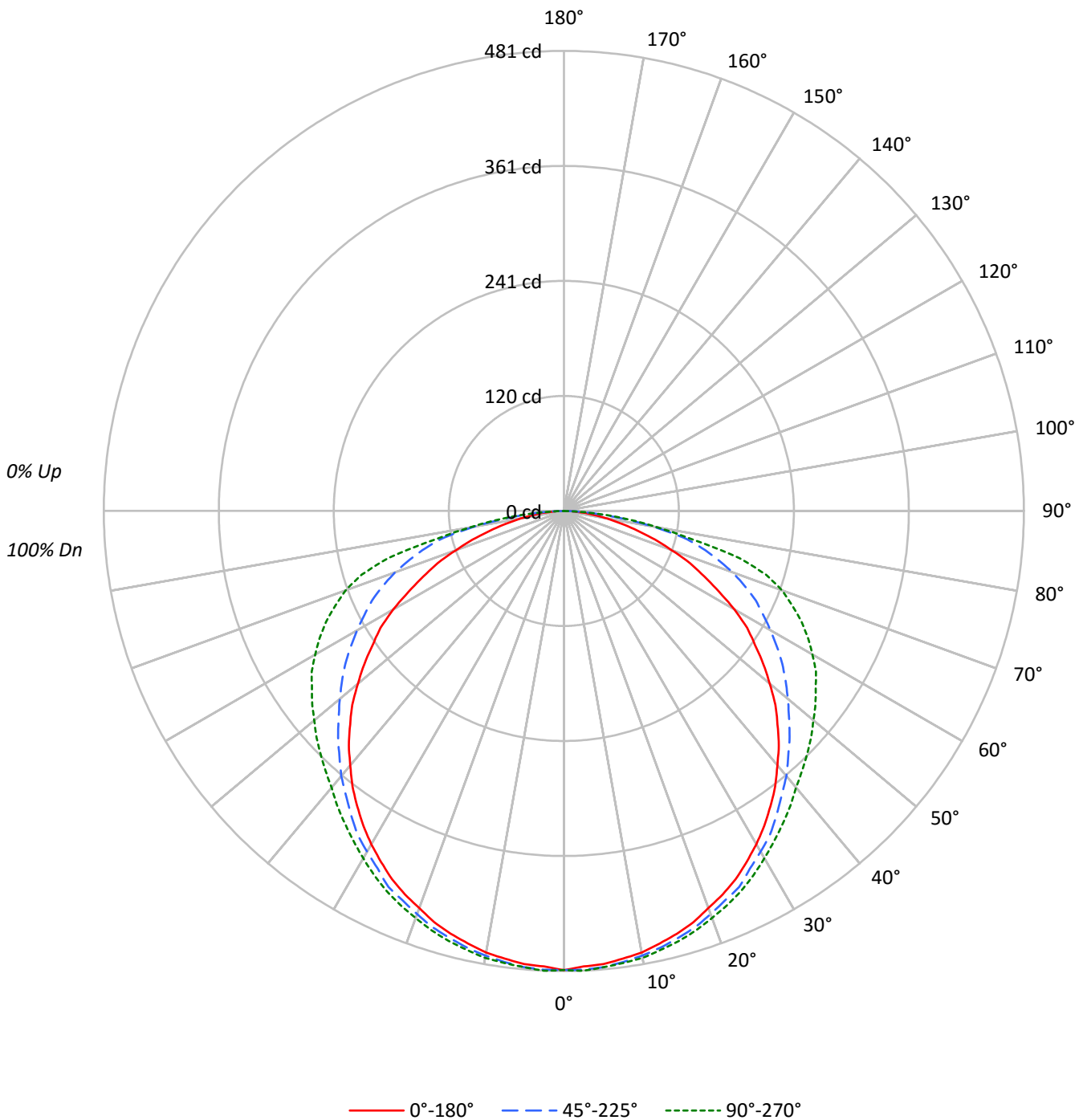
Input Watts (W): 19.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308381

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P308381

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5500K

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°	1292	1292	1292
5°	1284	1293	1293
10°	1281	1290	1296
15°	1275	1287	1297
20°	1265	1284	1297
25°	1262	1288	1302
30°	1250	1278	1303
35°	1237	1274	1311
40°	1220	1271	1327
45°	1202	1270	1369
50°	1176	1280	1426
55°	1144	1308	1508
60°	1107	1343	1615
65°	1031	1410	1747
70°	947	1477	1910
75°	830	1554	1975
80°	714	1480	1550
85°	624	1074	1179



TEST NUMBER: P308381

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	3.0
10°-20°	130.4	8.5
20°-30°	198.9	13.0
30°-40°	242.8	15.9
40°-50°	259.6	17.0
50°-60°	250.6	16.4
60°-70°	215.7	14.1
70°-80°	146.0	9.6
80°-90°	38.5	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°	374.6	24.5
0°-40°	617.5	40.4
0°-60°	1127.8	73.8
0°-90°	1528.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1528.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	480	480	480	480	480	
5°	476	477	479	479	479	45
15°	458	459	462	464	465	129
25°	425	427	434	436	438	196
35°	377	380	388	396	399	236
45°	316	322	334	351	360	244
55°	244	252	279	307	322	219
65°	162	178	221	256	274	161
75°	80	106	150	180	190	86
85°	20	28	35	36	38	23
90°	0	0	0	0	0	



TEST NUMBER: P308381

CATALOG NUMBER: 22FC22-24HE-UNV-L82765-RDP-CA08-W2A-U-5500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	480.0	480.0	480.0	480.0	480.0
2.5°	476.6	477.7	480.0	480.0	481.1
5°	475.5	476.6	478.8	478.8	478.8
7.5°	472.1	473.2	475.5	476.6	476.6
10°	468.7	469.9	472.1	473.2	474.4
12.5°	463.1	464.2	467.6	469.9	469.9
15°	457.5	458.6	462.0	464.2	465.4
17.5°	450.7	453.0	456.4	458.6	459.7
20°	441.8	444.0	448.5	451.9	453.0
22.5°	433.9	436.1	440.6	444.0	446.2
25°	424.9	427.1	433.9	436.1	438.4
27.5°	413.7	415.9	421.5	426.0	429.4
30°	402.4	404.7	411.4	417.0	419.3
32.5°	390.0	393.4	401.3	405.8	409.2
35°	376.6	379.9	387.8	395.7	399.0
37.5°	363.1	366.4	374.3	384.4	388.9
40°	347.3	351.8	361.9	375.4	377.7
42.5°	332.7	338.3	347.3	363.1	368.7
45°	315.9	321.5	333.8	350.7	359.7
47.5°	300.1	305.7	319.2	339.5	350.7
50°	281.0	288.9	305.7	329.3	340.6
52.5°	263.0	269.8	292.3	318.1	331.6
55°	243.9	251.8	278.8	306.9	321.5
57.5°	227.1	233.8	264.2	295.6	312.5
60°	205.7	214.7	249.5	283.3	300.1
62.5°	183.2	196.7	234.9	269.8	287.8
65°	161.9	177.6	221.4	256.3	274.3
67.5°	142.8	159.6	204.6	241.7	258.5
70°	120.3	141.6	187.7	223.7	242.8
72.5°	100.0	123.6	168.6	204.6	221.4
75°	79.8	105.7	149.5	179.8	190.0
77.5°	61.8	86.6	128.1	137.1	138.3
80°	46.1	68.6	95.5	96.7	100.0
82.5°	31.5	48.3	61.8	67.4	68.6
85°	20.2	28.1	34.8	36.0	38.2
87.5°	9.0	10.1	12.4	11.2	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)