

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: P309131

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP250-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: P309131  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-44HE-UNV-L82765-S-CP250-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 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: 3574.0 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

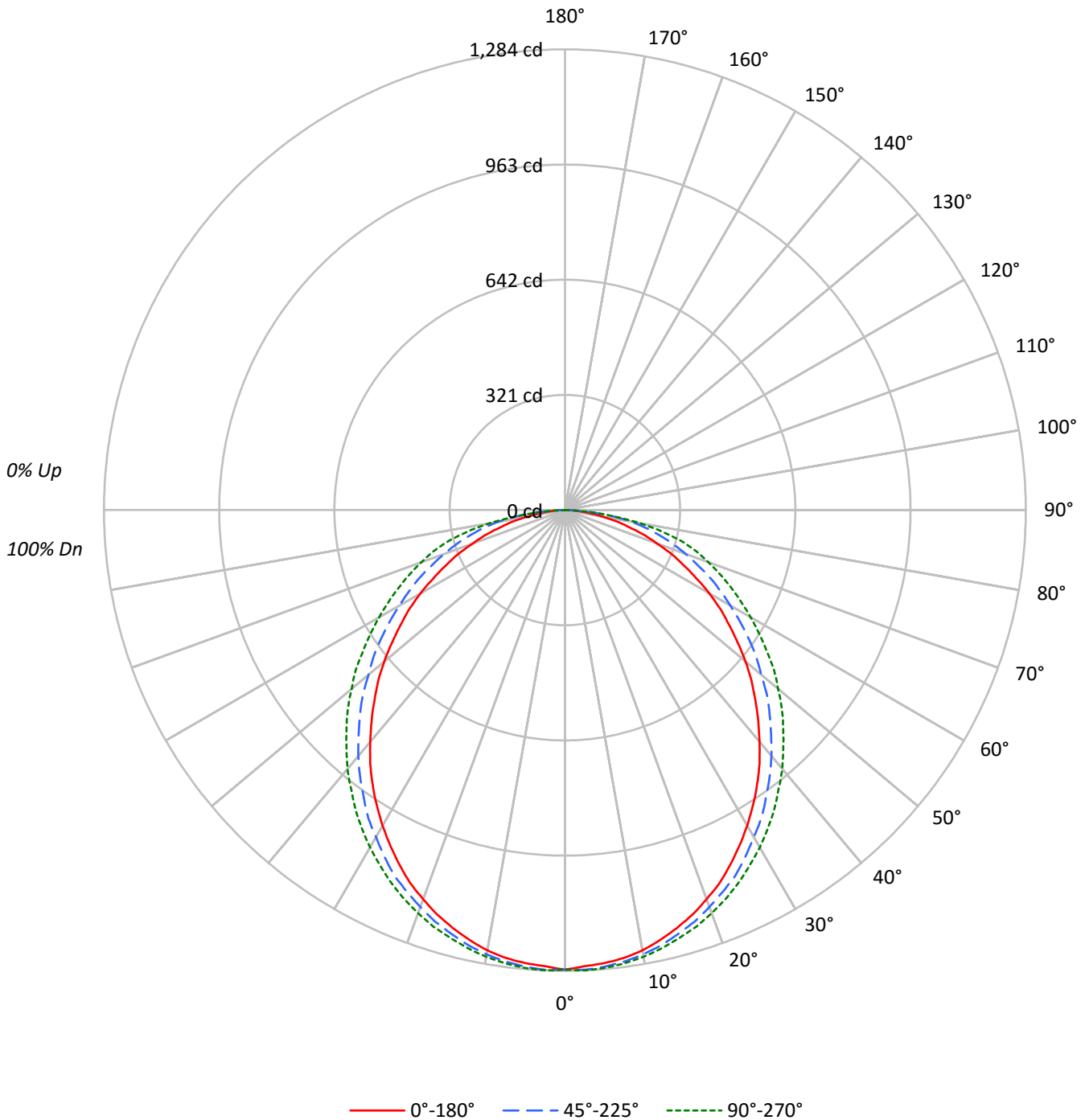
Input Watts (W): 37.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P309131

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-S-CP250-W2A-U-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P309131

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-S-CP250-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3446	3446	3446
5°	3423	3450	3460
10°	3404	3436	3454
15°	3359	3405	3438
20°	3304	3371	3424
25°	3238	3337	3401
30°	3155	3269	3373
35°	3068	3210	3342
40°	2964	3146	3310
45°	2856	3072	3275
50°	2750	2988	3246
55°	2621	2934	3223
60°	2504	2863	3213
65°	2336	2846	3249
70°	2152	2821	3345
75°	1942	2860	3519
80°	1680	2946	3307
85°	1389	2470	2470



TEST NUMBER: P309131

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-S-CP250-W2A-U-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.1	3.4
10°-20°	344.7	9.6
20°-30°	515.7	14.4
30°-40°	610.7	17.1
40°-50°	622.4	17.4
50°-60°	557.8	15.6
60°-70°	436.7	12.2
70°-80°	281.6	7.9
80°-90°	83.2	2.3
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°	981.5	27.5
0°-40°	1592.2	44.5
0°-60°	2772.4	77.6
0°-90°	3574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3574.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1281	1281	1281	1281	1281	
5°	1267	1271	1277	1279	1281	120
15°	1206	1212	1222	1232	1234	340
25°	1091	1101	1124	1139	1146	502
35°	934	946	977	1007	1017	584
45°	750	767	807	849	860	580
55°	559	577	625	669	687	501
65°	367	388	447	490	510	364
75°	187	215	275	322	338	200
85°	45	62	80	80	80	53
90°	0	0	0	0	0	



TEST NUMBER: P309131

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-S-CP250-W2A-U-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1280.7	1280.7	1280.7	1280.7	1280.7
2.5°	1272.3	1275.7	1282.3	1284.0	1284.0
5°	1267.3	1270.7	1277.3	1279.0	1280.7
7.5°	1259.0	1260.7	1269.0	1272.3	1274.0
10°	1245.7	1249.0	1257.3	1262.3	1264.0
12.5°	1227.3	1232.3	1242.3	1249.0	1250.7
15°	1205.6	1212.3	1222.3	1232.3	1234.0
17.5°	1182.3	1189.0	1202.3	1214.0	1217.3
20°	1153.9	1162.3	1177.3	1190.6	1195.6
22.5°	1125.6	1132.3	1150.6	1167.3	1172.3
25°	1090.6	1100.6	1123.9	1138.9	1145.6
27.5°	1053.9	1065.6	1088.9	1108.9	1115.6
30°	1015.5	1027.2	1052.2	1077.2	1085.6
32.5°	975.5	988.9	1018.9	1043.9	1052.2
35°	933.8	945.5	977.2	1007.2	1017.2
37.5°	890.5	900.5	937.2	968.8	978.8
40°	843.8	857.1	895.5	932.2	942.2
42.5°	797.1	812.1	850.4	890.5	900.5
45°	750.4	767.1	807.1	848.8	860.5
47.5°	705.4	718.7	763.7	803.8	820.4
50°	657.0	670.4	713.7	758.7	775.4
52.5°	607.0	625.3	672.0	715.4	735.4
55°	558.6	577.0	625.3	668.7	687.0
57.5°	513.6	528.6	578.6	623.7	642.0
60°	465.2	478.6	531.9	580.3	597.0
62.5°	413.6	433.6	488.6	533.6	553.6
65°	366.9	388.5	446.9	490.3	510.3
67.5°	323.5	343.5	400.2	446.9	468.6
70°	273.5	300.2	358.5	405.2	425.2
72.5°	233.5	256.8	316.8	363.5	385.2
75°	186.8	215.1	275.1	321.8	338.5
77.5°	148.4	176.8	233.5	270.1	278.5
80°	108.4	136.7	190.1	208.4	213.4
82.5°	73.4	100.1	136.7	141.7	143.4
85°	45.0	61.7	80.0	80.0	80.0
87.5°	21.7	25.0	28.3	26.7	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)