

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: P309093

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CP250-W2A-U-5700K**

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: P309093
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: 22FCZ2-39HE-UNV-L82765-S-CP250-W2A-U-5700K
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: 3620.0 lumens
Efficiency: N/A
Efficacy: 108.7 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

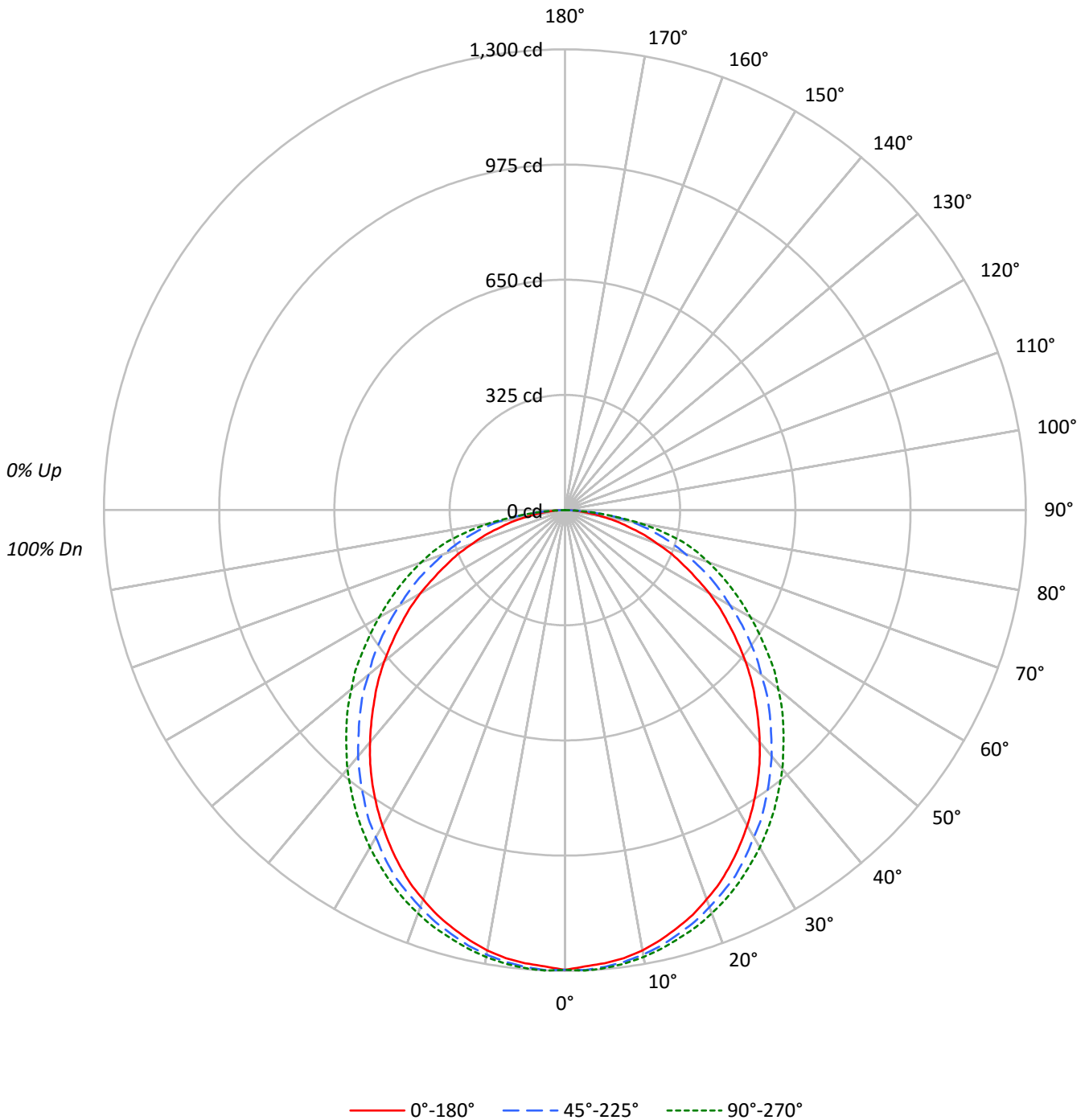
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309093

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-S-CP250-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P309093

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-S-CP250-W2A-U-5700K

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°	3491	3491	3491
5°	3467	3495	3504
10°	3448	3480	3498
15°	3402	3449	3482
20°	3347	3415	3468
25°	3280	3380	3445
30°	3196	3312	3416
35°	3107	3252	3385
40°	3002	3186	3352
45°	2893	3111	3317
50°	2786	3026	3288
55°	2654	2972	3265
60°	2536	2900	3254
65°	2366	2883	3291
70°	2179	2857	3389
75°	1967	2898	3565
80°	1702	2983	3350
85°	1408	2504	2504



TEST NUMBER: P309093

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-S-CP250-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	3.4
10°-20°	349.1	9.6
20°-30°	522.3	14.4
30°-40°	618.6	17.1
40°-50°	630.4	17.4
50°-60°	565.0	15.6
60°-70°	442.4	12.2
70°-80°	285.3	7.9
80°-90°	84.3	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°	994.1	27.5
0°-40°	1612.7	44.5
0°-60°	2808.1	77.6
0°-90°	3620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1297	1297	1297	1297	1297	
5°	1284	1287	1294	1296	1297	122
15°	1221	1228	1238	1248	1250	344
25°	1105	1115	1138	1154	1160	508
35°	946	958	990	1020	1030	591
45°	760	777	818	860	872	587
55°	566	584	633	677	696	507
65°	372	394	453	497	517	369
75°	189	218	279	326	343	203
85°	46	62	81	81	81	54
90°	0	0	0	0	0	



TEST NUMBER: P309093

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-S-CP250-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1297.2	1297.2	1297.2	1297.2	1297.2
2.5°	1288.7	1292.1	1298.8	1300.5	1300.5
5°	1283.6	1287.0	1293.8	1295.5	1297.2
7.5°	1275.2	1276.9	1285.3	1288.7	1290.4
10°	1261.7	1265.1	1273.5	1278.6	1280.3
12.5°	1243.1	1248.2	1258.3	1265.1	1266.8
15°	1221.2	1227.9	1238.0	1248.2	1249.9
17.5°	1197.5	1204.3	1217.8	1229.6	1233.0
20°	1168.8	1177.2	1192.4	1206.0	1211.0
22.5°	1140.1	1146.8	1165.4	1182.3	1187.4
25°	1104.6	1114.7	1138.4	1153.6	1160.3
27.5°	1067.5	1079.3	1102.9	1123.2	1129.9
30°	1028.6	1040.4	1065.8	1091.1	1099.5
32.5°	988.1	1001.6	1032.0	1057.3	1065.8
35°	945.8	957.7	989.8	1020.2	1030.3
37.5°	901.9	912.1	949.2	981.3	991.4
40°	854.6	868.2	907.0	944.2	954.3
42.5°	807.3	822.5	861.4	901.9	912.1
45°	760.1	776.9	817.5	859.7	871.5
47.5°	714.5	728.0	773.6	814.1	831.0
50°	665.5	679.0	722.9	768.5	785.4
52.5°	614.8	633.4	680.7	724.6	744.9
55°	565.8	584.4	633.4	677.3	695.9
57.5°	520.2	535.4	586.1	631.7	650.3
60°	471.2	484.7	538.8	587.8	604.7
62.5°	418.9	439.1	494.9	540.5	560.8
65°	371.6	393.5	452.7	496.6	516.8
67.5°	327.7	347.9	405.4	452.7	474.6
70°	277.0	304.0	363.1	410.4	430.7
72.5°	236.5	260.1	320.9	368.2	390.2
75°	189.2	217.9	278.7	326.0	342.9
77.5°	150.3	179.0	236.5	273.6	282.1
80°	109.8	138.5	192.5	211.1	216.2
82.5°	74.3	101.3	138.5	143.6	145.3
85°	45.6	62.5	81.1	81.1	81.1
87.5°	22.0	25.3	28.7	27.0	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)