

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: P308795

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CA125-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: P308795  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
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-CA125-W2A-U-5500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 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: 3675.0 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

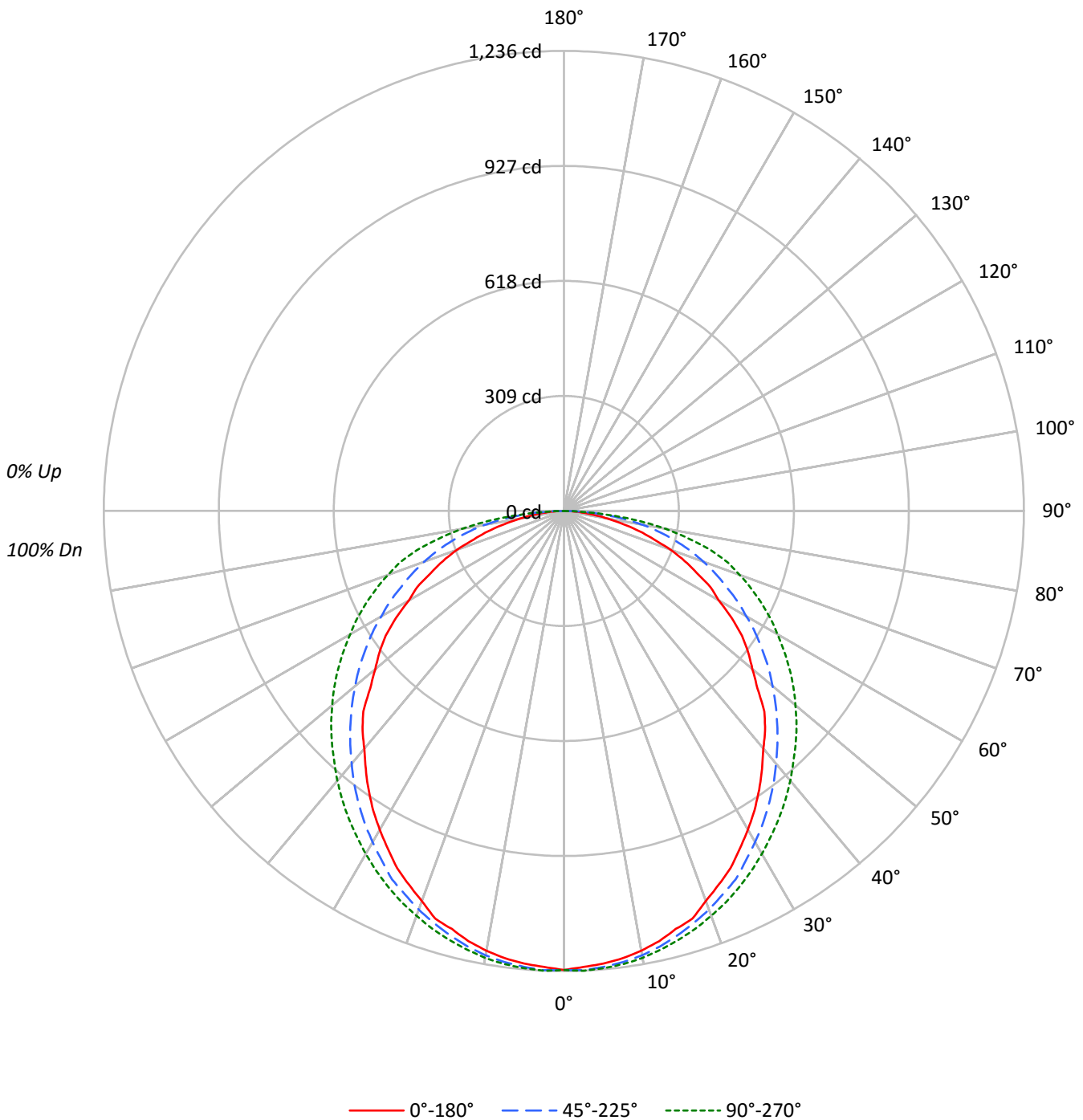
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P308795

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-CA125-W2A-U-5500K

### Luminous Intensity Polar Plot





TEST NUMBER: P308795

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-CA125-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	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	3318	3318	3318
5°	3297	3321	3331
10°	3278	3312	3331
15°	3239	3288	3322
20°	3193	3264	3314
25°	3144	3243	3311
30°	3072	3192	3306
35°	3005	3155	3311
40°	2929	3114	3324
45°	2898	3086	3354
50°	2768	3063	3402
55°	2740	3053	3474
60°	2584	3048	3569
65°	2509	3068	3729
70°	2408	3142	3958
75°	2195	3237	4261
80°	1881	3352	4307
85°	1519	3205	3693



TEST NUMBER: P308795

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-CA125-W2A-U-5500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.7	3.2
10°-20°	332.8	9.1
20°-30°	500.9	13.6
30°-40°	601.2	16.4
40°-50°	628.4	17.1
50°-60°	585.6	15.9
60°-70°	480.3	13.1
70°-80°	323.6	8.8
80°-90°	105.4	2.9
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°	950.4	25.9
0°-40°	1551.6	42.2
0°-60°	2765.7	75.3
0°-90°	3675.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3675.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1233	1233	1233	1233	1233	
5°	1221	1224	1230	1231	1233	116
15°	1163	1170	1180	1191	1192	329
25°	1059	1066	1092	1108	1115	487
35°	915	927	960	994	1008	572
45°	762	767	811	860	881	582
55°	584	594	651	712	740	517
65°	394	412	482	552	586	392
75°	211	234	311	382	410	222
85°	49	70	104	121	120	59
90°	0	0	0	0	0	



TEST NUMBER: P308795

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-CA125-W2A-U-5500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1233.0	1233.0	1233.0	1233.0	1233.0
2.5°	1226.0	1229.5	1234.8	1236.5	1236.5
5°	1220.7	1224.2	1229.5	1231.2	1233.0
7.5°	1211.9	1215.4	1222.4	1226.0	1227.7
10°	1199.6	1203.1	1211.9	1217.2	1218.9
12.5°	1183.7	1187.3	1197.8	1204.9	1206.6
15°	1162.6	1169.7	1180.2	1190.8	1192.5
17.5°	1148.6	1146.8	1160.9	1173.2	1176.7
20°	1115.1	1123.9	1139.8	1153.8	1157.4
22.5°	1087.0	1094.0	1115.1	1131.0	1138.0
25°	1058.9	1065.9	1092.3	1108.1	1115.1
27.5°	1023.7	1034.2	1058.9	1081.7	1090.5
30°	988.5	999.1	1027.2	1053.6	1064.1
32.5°	953.3	965.6	995.5	1023.7	1036.0
35°	914.6	926.9	960.4	993.8	1007.9
37.5°	874.2	890.0	925.2	962.1	978.0
40°	833.7	849.6	886.5	928.7	946.3
42.5°	800.3	807.3	849.6	895.3	912.9
45°	761.6	766.9	810.9	860.1	881.2
47.5°	705.3	724.7	772.2	826.7	847.8
50°	661.3	682.5	731.7	789.7	812.6
52.5°	624.4	638.5	693.0	751.1	777.4
55°	584.0	594.5	650.8	712.4	740.5
57.5°	534.7	554.1	610.3	673.7	701.8
60°	480.2	504.8	566.4	635.0	663.1
62.5°	445.0	459.1	525.9	594.5	626.2
65°	394.0	411.6	481.9	552.3	585.7
67.5°	351.8	369.4	441.5	511.8	545.3
70°	306.0	323.6	399.3	469.6	503.0
72.5°	253.3	277.9	357.1	427.4	462.6
75°	211.1	233.9	311.3	381.7	409.8
77.5°	163.6	193.5	265.6	323.6	344.7
80°	121.4	151.3	216.3	258.6	277.9
82.5°	82.7	112.6	161.8	193.5	204.0
85°	49.2	70.4	103.8	121.4	119.6
87.5°	22.9	29.9	42.2	42.2	40.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)