

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: P308858

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP187-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: P308858
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: 22FCZ2-44HE-UNV-L82765-CP187-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.187" 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: 3872.0 lumens
Efficiency: N/A
Efficacy: 101.4 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

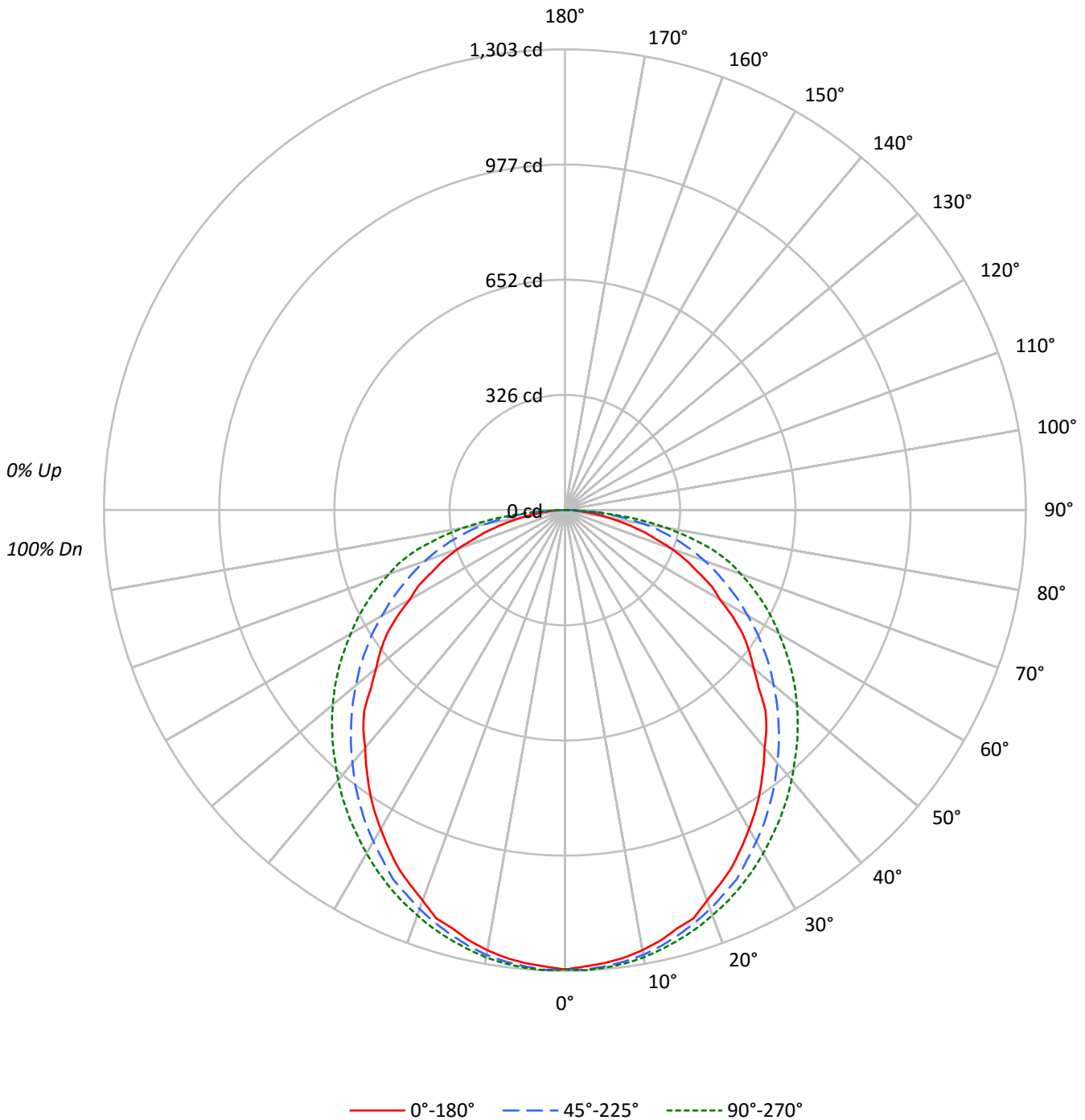
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308858

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-CP187-W2A-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P308858

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-CP187-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°	3496	3496	3496
5°	3474	3499	3509
10°	3454	3489	3509
15°	3413	3464	3500
20°	3365	3439	3492
25°	3312	3417	3488
30°	3236	3363	3484
35°	3166	3324	3488
40°	3086	3281	3502
45°	3054	3251	3534
50°	2917	3227	3584
55°	2887	3217	3660
60°	2723	3211	3760
65°	2643	3233	3929
70°	2537	3310	4170
75°	2312	3410	4489
80°	1982	3532	4537
85°	1602	3375	3890



TEST NUMBER: P308858

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-CP187-W2A-U-5500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.9	3.2
10°-20°	350.7	9.1
20°-30°	527.8	13.6
30°-40°	633.4	16.4
40°-50°	662.1	17.1
50°-60°	617.0	15.9
60°-70°	506.1	13.1
70°-80°	341.0	8.8
80°-90°	111.1	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°	1001.4	25.9
0°-40°	1634.8	42.2
0°-60°	2913.9	75.3
0°-90°	3872.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3872.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1299	1299	1299	1299	1299	
5°	1286	1290	1295	1297	1299	122
15°	1225	1232	1244	1255	1256	346
25°	1116	1123	1151	1168	1175	513
35°	964	977	1012	1047	1062	602
45°	802	808	854	906	928	613
55°	615	626	686	750	780	545
65°	415	434	508	582	617	413
75°	222	246	328	402	432	234
85°	52	74	109	128	126	62
90°	0	0	0	0	0	



TEST NUMBER: P308858

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-CP187-W2A-U-5500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1299.1	1299.1	1299.1	1299.1	1299.1
2.5°	1291.7	1295.4	1300.9	1302.8	1302.8
5°	1286.1	1289.8	1295.4	1297.2	1299.1
7.5°	1276.9	1280.6	1288.0	1291.7	1293.5
10°	1263.9	1267.6	1276.9	1282.4	1284.3
12.5°	1247.2	1250.9	1262.0	1269.4	1271.3
15°	1225.0	1232.4	1243.5	1254.6	1256.5
17.5°	1210.1	1208.3	1223.1	1236.1	1239.8
20°	1174.9	1184.2	1200.9	1215.7	1219.4
22.5°	1145.3	1152.7	1174.9	1191.6	1199.0
25°	1115.6	1123.0	1150.8	1167.5	1174.9
27.5°	1078.6	1089.7	1115.6	1139.7	1149.0
30°	1041.5	1052.6	1082.3	1110.1	1121.2
32.5°	1004.4	1017.4	1048.9	1078.6	1091.5
35°	963.7	976.6	1011.8	1047.1	1061.9
37.5°	921.0	937.7	974.8	1013.7	1030.4
40°	878.4	895.1	934.0	978.5	997.0
42.5°	843.2	850.6	895.1	943.3	961.8
45°	802.4	808.0	854.3	906.2	928.5
47.5°	743.1	763.5	813.6	871.0	893.2
50°	696.8	719.0	770.9	832.1	856.2
52.5°	657.9	672.7	730.2	791.3	819.1
55°	615.3	626.4	685.7	750.5	780.2
57.5°	563.4	583.8	643.1	709.8	739.4
60°	505.9	531.9	596.7	669.0	698.7
62.5°	468.9	483.7	554.1	626.4	659.7
65°	415.1	433.6	507.8	581.9	617.1
67.5°	370.6	389.2	465.2	539.3	574.5
70°	322.5	341.0	420.7	494.8	530.0
72.5°	266.9	292.8	376.2	450.3	487.4
75°	222.4	246.5	328.0	402.1	431.8
77.5°	172.3	203.9	279.8	341.0	363.2
80°	127.9	159.4	227.9	272.4	292.8
82.5°	87.1	118.6	170.5	203.9	215.0
85°	51.9	74.1	109.3	127.9	126.0
87.5°	24.1	31.5	44.5	44.5	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)