

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: P308868

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-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: P308868
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-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 3850.0 lumens
Efficiency: N/A
Efficacy: 100.8 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

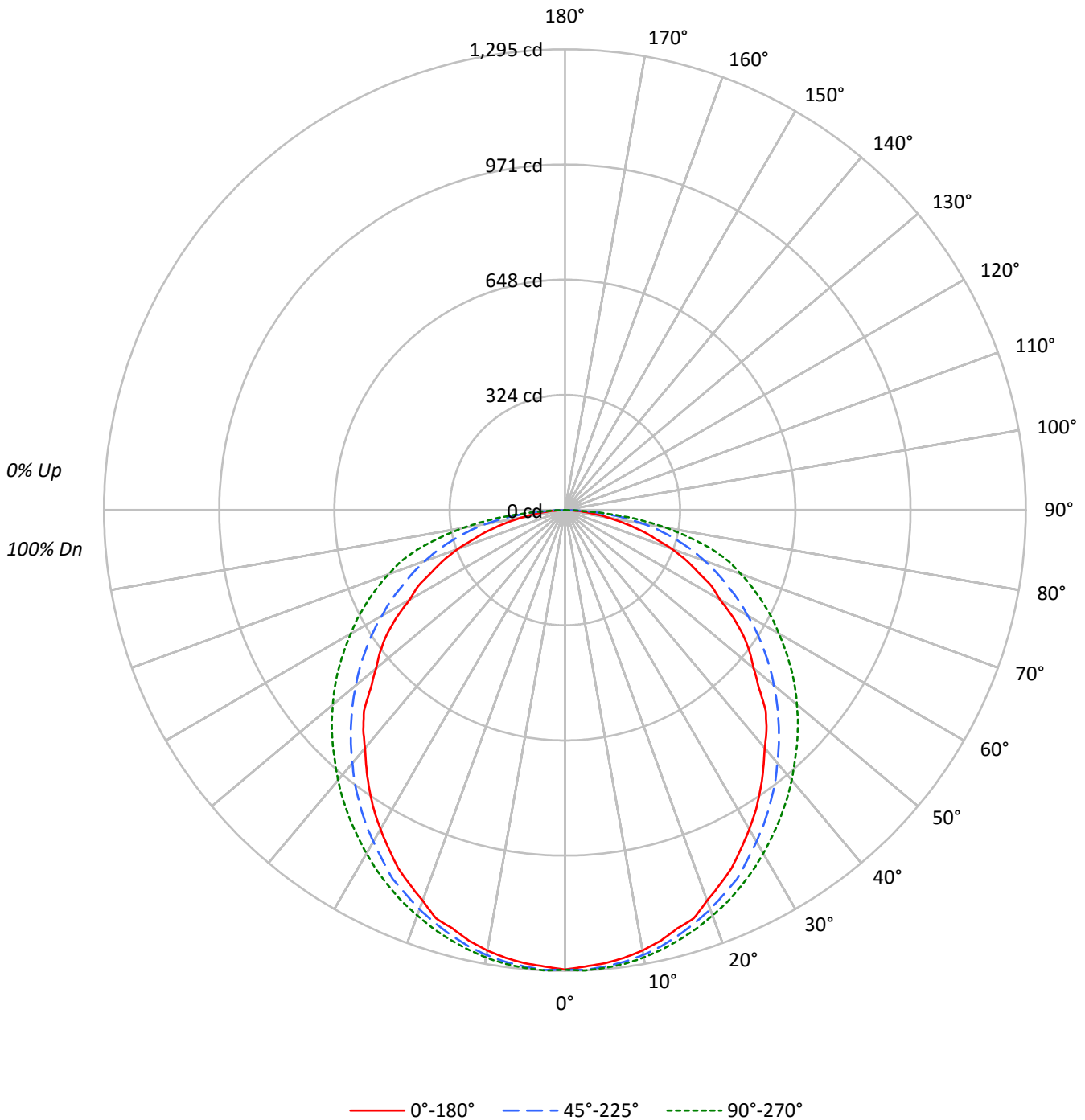
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	3476	3476	3476
5°	3454	3479	3489
10°	3434	3469	3489
15°	3393	3444	3480
20°	3345	3419	3472
25°	3294	3398	3469
30°	3218	3344	3464
35°	3148	3305	3468
40°	3068	3262	3483
45°	3037	3233	3513
50°	2900	3209	3564
55°	2870	3199	3640
60°	2707	3193	3739
65°	2628	3215	3907
70°	2522	3291	4146
75°	2299	3392	4463
80°	1970	3512	4511
85°	1593	3356	3869



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.2	3.2
10°-20°	348.7	9.1
20°-30°	524.8	13.6
30°-40°	629.8	16.4
40°-50°	658.3	17.1
50°-60°	613.5	15.9
60°-70°	503.2	13.1
70°-80°	339.1	8.8
80°-90°	110.4	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°	995.7	25.9
0°-40°	1625.5	42.2
0°-60°	2897.3	75.3
0°-90°	3850.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1292	1292	1292	1292	1292	
5°	1279	1282	1288	1290	1292	121
15°	1218	1225	1236	1248	1249	344
25°	1109	1117	1144	1161	1168	510
35°	958	971	1006	1041	1056	599
45°	798	803	850	901	923	609
55°	612	623	682	746	776	542
65°	413	431	505	579	614	411
75°	221	245	326	400	429	232
85°	52	74	109	127	125	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1291.7	1291.7	1291.7	1291.7	1291.7
2.5°	1284.3	1288.0	1293.6	1295.4	1295.4
5°	1278.8	1282.5	1288.0	1289.9	1291.7
7.5°	1269.6	1273.3	1280.7	1284.3	1286.2
10°	1256.7	1260.4	1269.6	1275.1	1277.0
12.5°	1240.1	1243.8	1254.9	1262.2	1264.1
15°	1218.0	1225.4	1236.4	1247.5	1249.3
17.5°	1203.3	1201.4	1216.2	1229.1	1232.7
20°	1168.2	1177.5	1194.0	1208.8	1212.5
22.5°	1138.8	1146.1	1168.2	1184.8	1192.2
25°	1109.3	1116.7	1144.3	1160.9	1168.2
27.5°	1072.4	1083.5	1109.3	1133.2	1142.5
30°	1035.6	1046.6	1076.1	1103.8	1114.8
32.5°	998.7	1011.6	1042.9	1072.4	1085.3
35°	958.2	971.1	1006.1	1041.1	1055.8
37.5°	915.8	932.4	969.2	1007.9	1024.5
40°	873.4	890.0	928.7	972.9	991.4
42.5°	838.4	845.8	890.0	937.9	956.3
45°	797.9	803.4	849.5	901.1	923.2
47.5°	738.9	759.2	808.9	866.1	888.2
50°	692.8	715.0	766.5	827.4	851.3
52.5°	654.1	668.9	726.0	786.8	814.5
55°	611.8	622.8	681.8	746.3	775.8
57.5°	560.2	580.4	639.4	705.7	735.2
60°	503.0	528.8	593.3	665.2	694.7
62.5°	466.2	480.9	551.0	622.8	656.0
65°	412.8	431.2	504.9	578.6	613.6
67.5°	368.5	387.0	462.5	536.2	571.2
70°	320.6	339.1	418.3	492.0	527.0
72.5°	265.3	291.1	374.1	447.8	484.6
75°	221.1	245.1	326.2	399.9	429.3
77.5°	171.4	202.7	278.2	339.1	361.2
80°	127.1	158.5	226.6	270.9	291.1
82.5°	86.6	117.9	169.5	202.7	213.7
85°	51.6	73.7	108.7	127.1	125.3
87.5°	24.0	31.3	44.2	44.2	42.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)