

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: P308842

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CA125-W2A-U-6500K**

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: P308842
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-CA125-W2A-U-6500K
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: 4145.0 lumens
Efficiency: N/A
Efficacy: 106.6 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

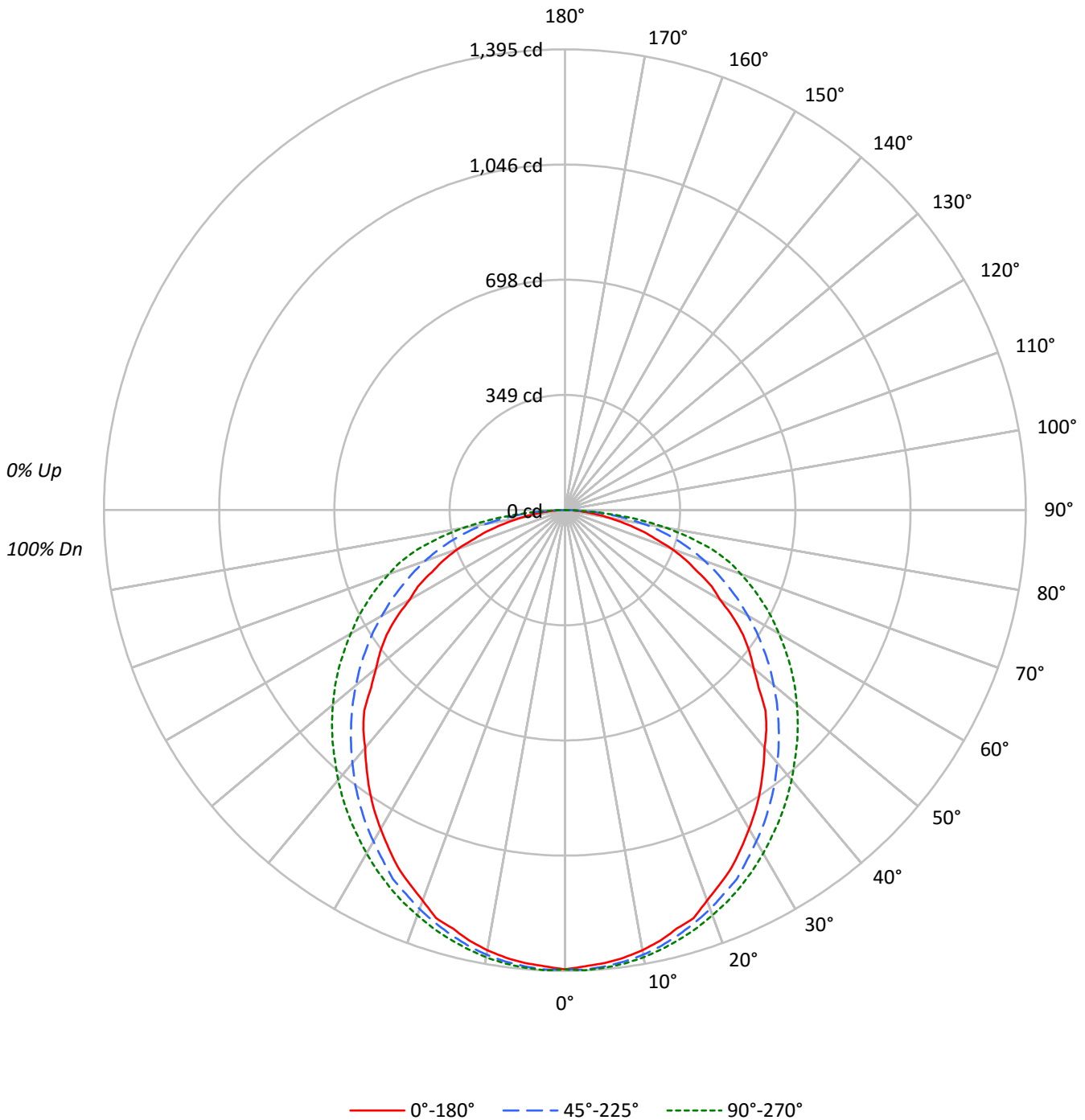
Input Watts (W): 38.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3742	3742	3742
5°	3719	3746	3757
10°	3697	3735	3757
15°	3653	3709	3747
20°	3602	3681	3738
25°	3546	3658	3735
30°	3464	3600	3729
35°	3389	3558	3734
40°	3303	3512	3749
45°	3269	3481	3782
50°	3123	3455	3837
55°	3090	3444	3918
60°	2915	3438	4025
65°	2830	3461	4206
70°	2716	3543	4464
75°	2476	3650	4806
80°	2122	3781	4857
85°	1714	3612	4165



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.6	3.2
10°-20°	375.4	9.1
20°-30°	565.0	13.6
30°-40°	678.1	16.4
40°-50°	708.7	17.1
50°-60°	660.5	15.9
60°-70°	541.7	13.1
70°-80°	365.0	8.8
80°-90°	118.9	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°	1072.0	25.9
0°-40°	1750.1	42.2
0°-60°	3119.3	75.3
0°-90°	4145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4145.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1377	1381	1387	1389	1391	131
15°	1311	1319	1331	1343	1345	371
25°	1194	1202	1232	1250	1258	549
35°	1032	1046	1083	1121	1137	645
45°	859	865	915	970	994	656
55°	659	670	734	804	835	584
65°	444	464	544	623	661	442
75°	238	264	351	430	462	250
85°	56	79	117	137	135	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1390.7	1390.7	1390.7	1390.7	1390.7
2.5°	1382.7	1386.7	1392.7	1394.7	1394.7
5°	1376.8	1380.8	1386.7	1388.7	1390.7
7.5°	1366.9	1370.8	1378.8	1382.7	1384.7
10°	1353.0	1357.0	1366.9	1372.8	1374.8
12.5°	1335.1	1339.1	1351.0	1358.9	1360.9
15°	1311.3	1319.3	1331.2	1343.1	1345.1
17.5°	1295.5	1293.5	1309.3	1323.2	1327.2
20°	1257.8	1267.7	1285.5	1301.4	1305.4
22.5°	1226.0	1234.0	1257.8	1275.6	1283.6
25°	1194.3	1202.2	1232.0	1249.8	1257.8
27.5°	1154.6	1166.5	1194.3	1220.1	1230.0
30°	1114.9	1126.8	1158.6	1188.3	1200.2
32.5°	1075.2	1089.1	1122.9	1154.6	1168.5
35°	1031.6	1045.5	1083.2	1120.9	1136.7
37.5°	986.0	1003.8	1043.5	1085.2	1103.0
40°	940.3	958.2	999.9	1047.5	1067.3
42.5°	902.7	910.6	958.2	1009.8	1029.6
45°	859.0	865.0	914.6	970.1	993.9
47.5°	795.5	817.3	870.9	932.4	956.2
50°	745.9	769.7	825.3	890.8	916.5
52.5°	704.3	720.1	781.6	847.1	876.9
55°	658.6	670.5	734.0	803.5	835.2
57.5°	603.1	624.9	688.4	759.8	791.6
60°	541.6	569.4	638.8	716.2	747.9
62.5°	501.9	517.8	593.2	670.5	706.3
65°	444.4	464.2	543.6	622.9	660.6
67.5°	396.8	416.6	497.9	577.3	615.0
70°	345.2	365.0	450.3	529.7	567.4
72.5°	285.7	313.4	402.7	482.1	521.8
75°	238.1	263.9	351.1	430.5	462.2
77.5°	184.5	218.2	299.6	365.0	388.8
80°	136.9	170.6	244.0	291.6	313.4
82.5°	93.2	127.0	182.5	218.2	230.1
85°	55.5	79.4	117.0	136.9	134.9
87.5°	25.8	33.7	47.6	47.6	45.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)