

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: P309120

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP125-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: P309120
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: 22FCZ2-44HE-UNV-L82765-S-CP125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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: 4275.0 lumens
Efficiency: N/A
Efficacy: 111.9 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

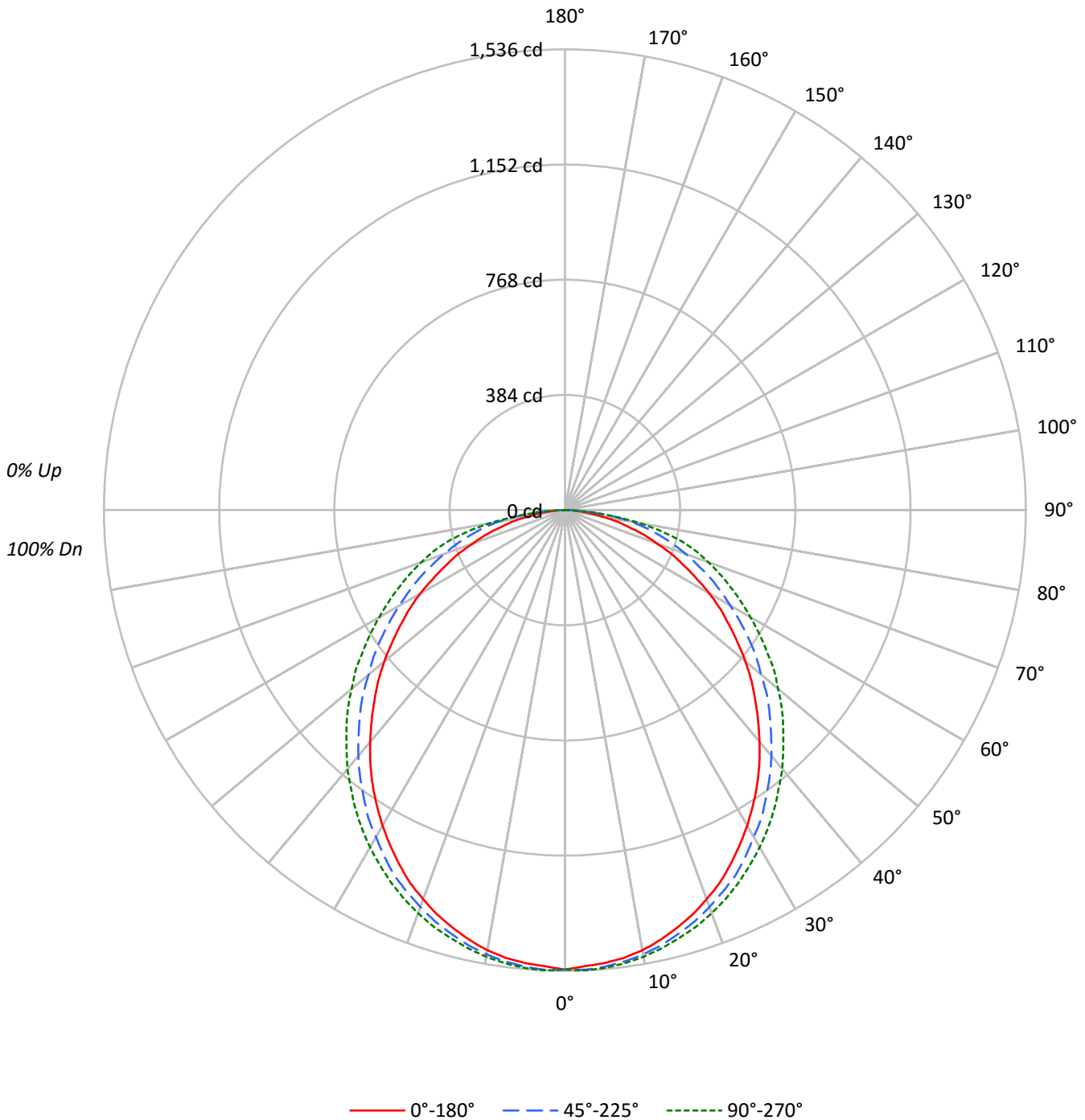
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4122	4122	4122
5°	4095	4127	4138
10°	4071	4109	4131
15°	4018	4073	4112
20°	3953	4033	4095
25°	3873	3992	4069
30°	3774	3911	4035
35°	3669	3840	3997
40°	3545	3763	3959
45°	3416	3674	3917
50°	3290	3574	3883
55°	3135	3509	3856
60°	2995	3425	3843
65°	2794	3404	3887
70°	2574	3374	4002
75°	2323	3422	4210
80°	2010	3524	3956
85°	1664	2955	2955



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.9	3.4
10°-20°	412.3	9.6
20°-30°	616.8	14.4
30°-40°	730.5	17.1
40°-50°	744.5	17.4
50°-60°	667.3	15.6
60°-70°	522.4	12.2
70°-80°	336.9	7.9
80°-90°	99.5	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°	1174.0	27.5
0°-40°	1904.5	44.5
0°-60°	3316.2	77.6
0°-90°	4275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1532	1532	1532	1532	1532	
5°	1516	1520	1528	1530	1532	144
15°	1442	1450	1462	1474	1476	407
25°	1304	1316	1344	1362	1370	600
35°	1117	1131	1169	1205	1217	698
45°	898	918	965	1015	1029	693
55°	668	690	748	800	822	599
65°	439	465	535	586	610	436
75°	223	257	329	385	405	240
85°	54	74	96	96	96	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1531.9	1531.9	1531.9	1531.9	1531.9
2.5°	1521.9	1525.9	1533.9	1535.9	1535.9
5°	1515.9	1519.9	1527.9	1529.9	1531.9
7.5°	1505.9	1507.9	1517.9	1521.9	1523.9
10°	1490.0	1494.0	1503.9	1509.9	1511.9
12.5°	1468.0	1474.0	1486.0	1494.0	1496.0
15°	1442.1	1450.1	1462.1	1474.0	1476.0
17.5°	1414.2	1422.2	1438.1	1452.1	1456.1
20°	1380.3	1390.2	1408.2	1424.2	1430.1
22.5°	1346.4	1354.3	1376.3	1396.2	1402.2
25°	1304.5	1316.4	1344.4	1362.3	1370.3
27.5°	1260.6	1274.6	1302.5	1326.4	1334.4
30°	1214.7	1228.7	1258.6	1288.5	1298.5
32.5°	1166.9	1182.8	1218.7	1248.6	1258.6
35°	1117.0	1130.9	1168.8	1204.7	1216.7
37.5°	1065.1	1077.1	1121.0	1158.9	1170.8
40°	1009.3	1025.2	1071.1	1115.0	1127.0
42.5°	953.4	971.4	1017.3	1065.1	1077.1
45°	897.6	917.5	965.4	1015.3	1029.2
47.5°	843.7	859.7	913.5	961.4	981.4
50°	785.9	801.8	853.7	907.6	927.5
52.5°	726.0	748.0	803.8	855.7	879.6
55°	668.2	690.1	748.0	799.8	821.8
57.5°	614.3	632.3	692.1	746.0	767.9
60°	556.5	572.5	636.3	694.1	714.1
62.5°	494.7	518.6	584.4	638.3	662.2
65°	438.8	464.7	534.6	586.4	610.4
67.5°	387.0	410.9	478.7	534.6	560.5
70°	327.1	359.0	428.8	484.7	508.6
72.5°	279.2	307.2	379.0	434.8	460.8
75°	223.4	257.3	329.1	385.0	404.9
77.5°	177.5	211.4	279.2	323.1	333.1
80°	129.7	163.6	227.4	249.3	255.3
82.5°	87.8	119.7	163.6	169.5	171.5
85°	53.9	73.8	95.7	95.7	95.7
87.5°	25.9	29.9	33.9	31.9	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)