

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: P309118

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP125-W2A-U-5000K**

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: P309118
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-5000K
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: 4222.0 lumens
Efficiency: N/A
Efficacy: 110.8 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

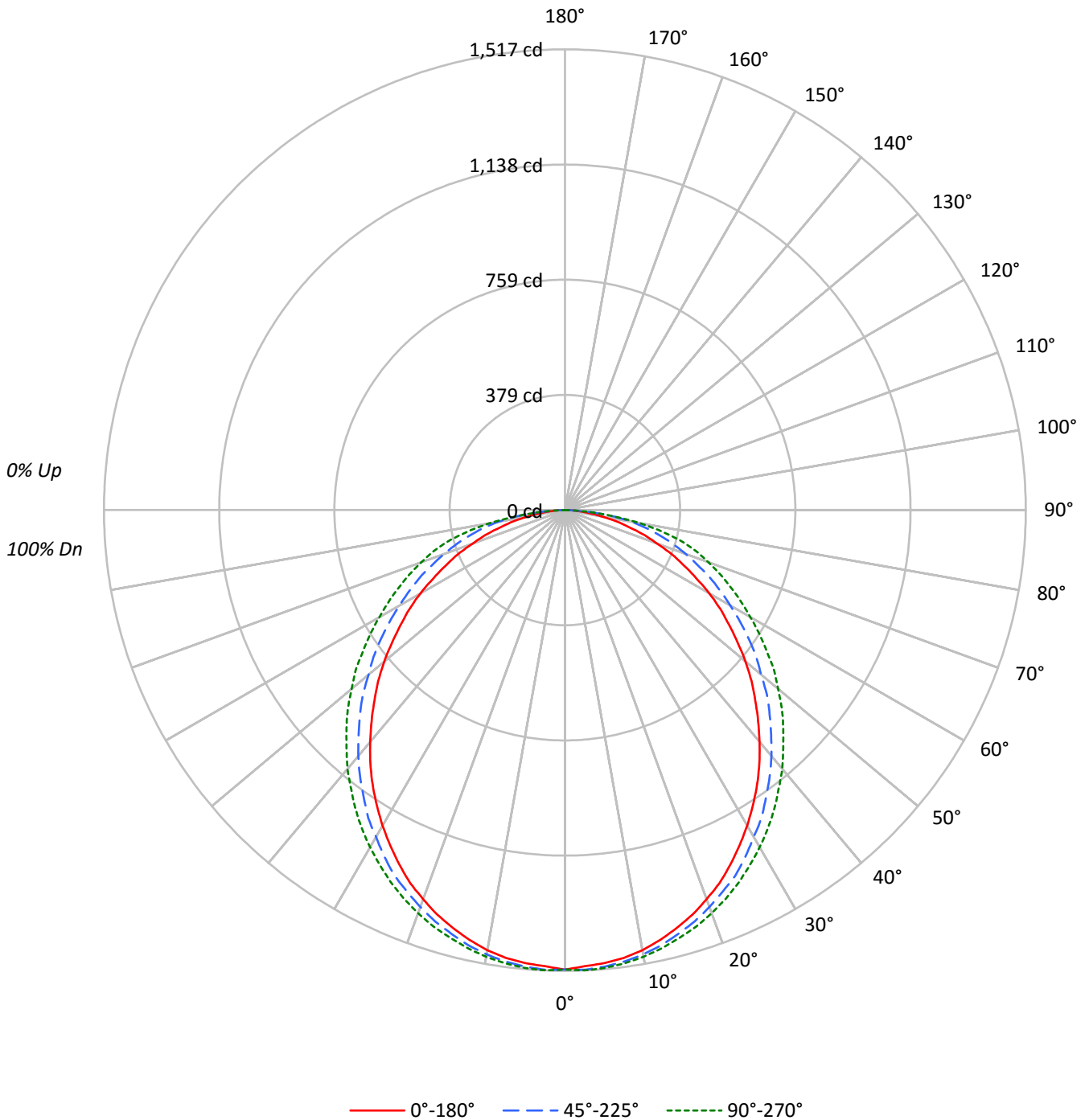
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4071	4071	4071
5°	4044	4076	4087
10°	4021	4059	4080
15°	3968	4023	4061
20°	3904	3983	4045
25°	3825	3942	4018
30°	3728	3862	3985
35°	3624	3792	3947
40°	3502	3716	3910
45°	3373	3628	3868
50°	3249	3530	3835
55°	3096	3466	3808
60°	2958	3382	3795
65°	2760	3361	3838
70°	2542	3332	3952
75°	2294	3379	4158
80°	1984	3481	3907
85°	1643	2921	2921



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.1	3.4
10°-20°	407.1	9.6
20°-30°	609.2	14.4
30°-40°	721.4	17.1
40°-50°	735.2	17.4
50°-60°	659.0	15.6
60°-70°	515.9	12.2
70°-80°	332.7	7.9
80°-90°	98.3	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°	1159.4	27.5
0°-40°	1880.9	44.5
0°-60°	3275.1	77.6
0°-90°	4222.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4222.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1513	1513	1513	1513	1513	
5°	1497	1501	1509	1511	1513	142
15°	1424	1432	1444	1456	1458	402
25°	1288	1300	1328	1345	1353	593
35°	1103	1117	1154	1190	1202	689
45°	886	906	953	1003	1016	685
55°	660	682	739	790	812	592
65°	433	459	528	579	603	431
75°	221	254	325	380	400	237
85°	53	73	95	95	95	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1512.9	1512.9	1512.9	1512.9	1512.9
2.5°	1503.0	1507.0	1514.8	1516.8	1516.8
5°	1497.1	1501.1	1508.9	1510.9	1512.9
7.5°	1487.3	1489.2	1499.1	1503.0	1505.0
10°	1471.5	1475.4	1485.3	1491.2	1493.2
12.5°	1449.8	1455.7	1467.6	1475.4	1477.4
15°	1424.2	1432.1	1443.9	1455.7	1457.7
17.5°	1396.7	1404.5	1420.3	1434.1	1438.0
20°	1363.2	1373.0	1390.7	1406.5	1412.4
22.5°	1329.7	1337.6	1359.2	1378.9	1384.8
25°	1288.3	1300.1	1327.7	1345.4	1353.3
27.5°	1245.0	1258.8	1286.3	1310.0	1317.9
30°	1199.7	1213.5	1243.0	1272.5	1282.4
32.5°	1152.4	1168.1	1203.6	1233.2	1243.0
35°	1103.1	1116.9	1154.4	1189.8	1201.6
37.5°	1051.9	1063.7	1107.1	1144.5	1156.3
40°	996.8	1012.5	1057.8	1101.2	1113.0
42.5°	941.6	959.3	1004.6	1051.9	1063.7
45°	886.4	906.1	953.4	1002.7	1016.5
47.5°	833.3	849.0	902.2	949.5	969.2
50°	776.1	791.9	843.1	896.3	916.0
52.5°	717.0	738.7	793.9	845.1	868.7
55°	659.9	681.6	738.7	789.9	811.6
57.5°	606.7	624.5	683.6	736.7	758.4
60°	549.6	565.4	628.4	685.5	705.2
62.5°	488.5	512.2	577.2	630.4	654.0
65°	433.4	459.0	527.9	579.1	602.8
67.5°	382.2	405.8	472.8	527.9	553.5
70°	323.1	354.6	423.5	478.7	502.3
72.5°	275.8	303.4	374.3	429.4	455.0
75°	220.6	254.1	325.0	380.2	399.9
77.5°	175.3	208.8	275.8	319.1	329.0
80°	128.0	161.5	224.6	246.2	252.1
82.5°	86.7	118.2	161.5	167.4	169.4
85°	53.2	72.9	94.6	94.6	94.6
87.5°	25.6	29.5	33.5	31.5	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)