

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: P313022

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-4000K**

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: P313022
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-L83050-S-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 4391.0 lumens
Efficiency: N/A
Efficacy: 115.2 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

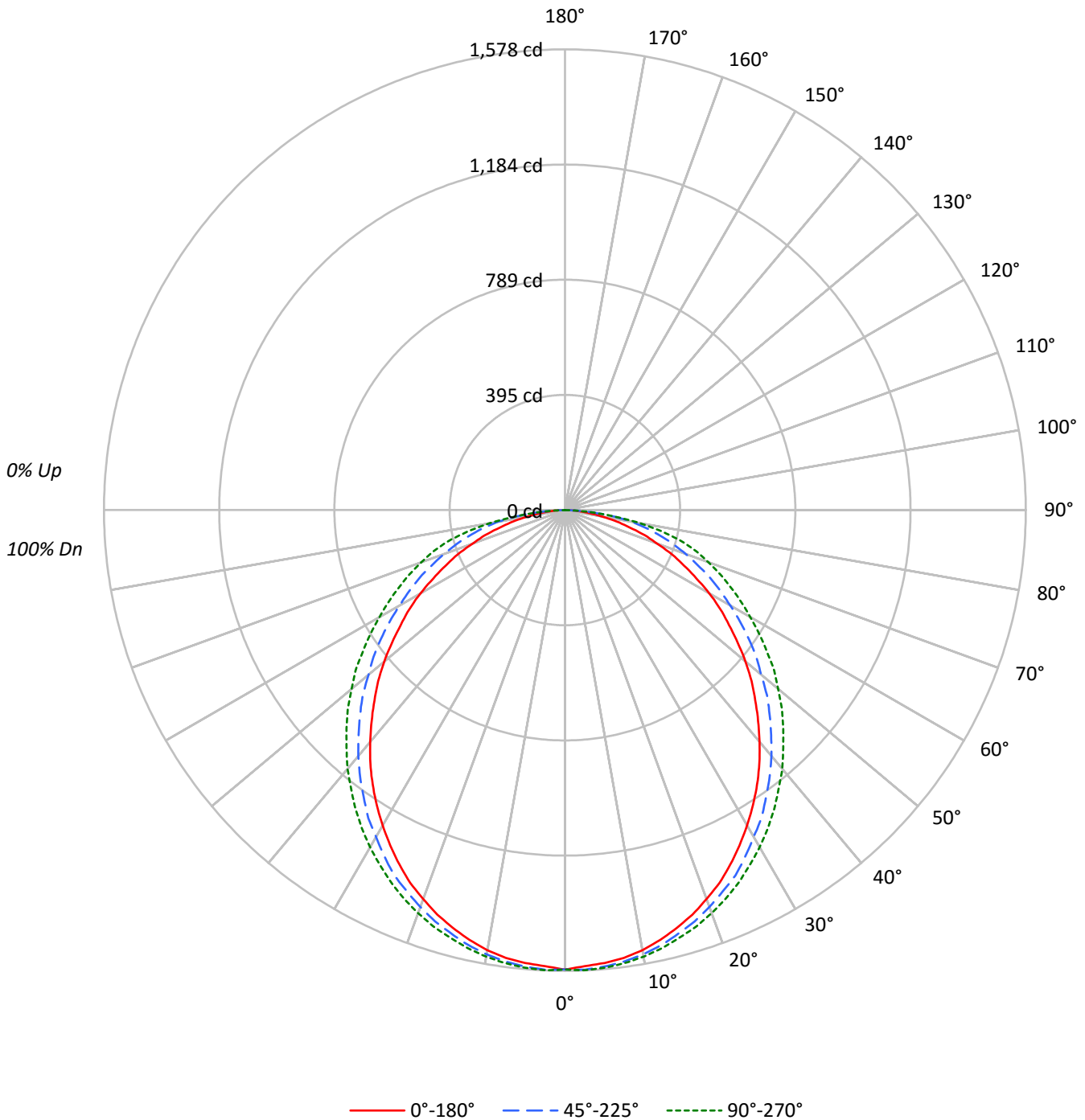
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4234	4234	4234
5°	4206	4239	4250
10°	4182	4221	4243
15°	4126	4184	4224
20°	4060	4142	4206
25°	3978	4100	4179
30°	3877	4017	4144
35°	3769	3944	4105
40°	3642	3865	4066
45°	3508	3774	4023
50°	3379	3671	3988
55°	3220	3605	3960
60°	3076	3517	3947
65°	2870	3496	3992
70°	2644	3466	4110
75°	2386	3514	4324
80°	2064	3620	4063
85°	1707	3035	3035



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.8	3.4
10°-20°	423.4	9.6
20°-30°	633.6	14.4
30°-40°	750.3	17.1
40°-50°	764.7	17.4
50°-60°	685.4	15.6
60°-70°	536.6	12.2
70°-80°	346.0	7.9
80°-90°	102.2	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°	1205.8	27.5
0°-40°	1956.2	44.5
0°-60°	3406.2	77.6
0°-90°	4391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	1557	1561	1569	1571	1573	148
15°	1481	1489	1502	1514	1516	418
25°	1340	1352	1381	1399	1408	617
35°	1147	1162	1201	1237	1250	717
45°	922	942	992	1043	1057	712
55°	686	709	768	822	844	615
65°	451	477	549	602	627	448
75°	230	264	338	395	416	246
85°	55	76	98	98	98	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1573.4	1573.4	1573.4	1573.4	1573.4
2.5°	1563.2	1567.3	1575.5	1577.5	1577.5
5°	1557.0	1561.1	1569.3	1571.4	1573.4
7.5°	1546.8	1548.8	1559.1	1563.2	1565.2
10°	1530.4	1534.5	1544.7	1550.9	1552.9
12.5°	1507.9	1514.0	1526.3	1534.5	1536.6
15°	1481.2	1489.4	1501.7	1514.0	1516.1
17.5°	1452.6	1460.8	1477.1	1491.5	1495.6
20°	1417.7	1428.0	1446.4	1462.8	1468.9
22.5°	1382.9	1391.1	1413.6	1434.1	1440.3
25°	1339.9	1352.2	1380.9	1399.3	1407.5
27.5°	1294.8	1309.1	1337.8	1362.4	1370.6
30°	1247.7	1262.0	1292.8	1323.5	1333.7
32.5°	1198.5	1214.9	1251.8	1282.5	1292.8
35°	1147.3	1161.6	1200.6	1237.4	1249.7
37.5°	1094.0	1106.3	1151.4	1190.3	1202.6
40°	1036.7	1053.1	1100.2	1145.2	1157.5
42.5°	979.3	997.7	1044.9	1094.0	1106.3
45°	921.9	942.4	991.6	1042.8	1057.1
47.5°	866.6	883.0	938.3	987.5	1008.0
50°	807.2	823.6	876.9	932.2	952.7
52.5°	745.7	768.3	825.6	878.9	903.5
55°	686.3	708.9	768.3	821.5	844.1
57.5°	631.0	649.5	710.9	766.2	788.8
60°	571.6	588.0	653.5	713.0	733.4
62.5°	508.1	532.7	600.3	655.6	680.2
65°	450.7	477.4	549.1	602.3	626.9
67.5°	397.5	422.0	491.7	549.1	575.7
70°	336.0	368.8	440.5	497.8	522.4
72.5°	286.8	315.5	389.3	446.6	473.3
75°	229.5	264.3	338.0	395.4	415.9
77.5°	182.3	217.2	286.8	331.9	342.1
80°	133.2	168.0	233.6	256.1	262.2
82.5°	90.1	122.9	168.0	174.1	176.2
85°	55.3	75.8	98.3	98.3	98.3
87.5°	26.6	30.7	34.8	32.8	32.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)