

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: P309111

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CA125-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: P309111
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-CA125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 4360.0 lumens
Efficiency: N/A
Efficacy: 114.1 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

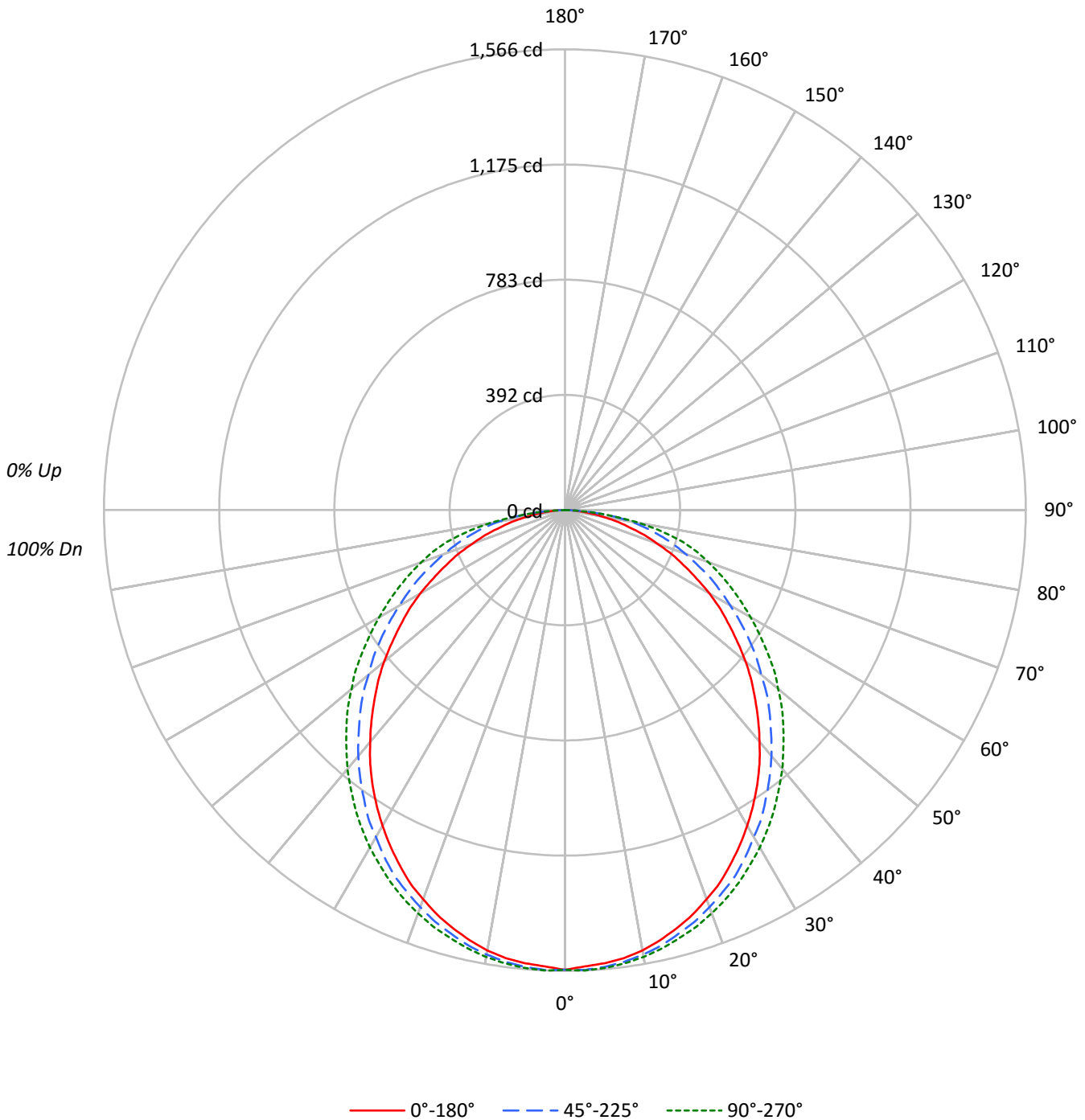
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4204	4204	4204
5°	4176	4209	4220
10°	4152	4191	4214
15°	4098	4154	4194
20°	4031	4113	4177
25°	3950	4071	4149
30°	3850	3988	4115
35°	3742	3916	4076
40°	3616	3837	4038
45°	3484	3747	3995
50°	3355	3645	3960
55°	3197	3579	3932
60°	3055	3492	3920
65°	2849	3472	3964
70°	2625	3441	4081
75°	2368	3490	4294
80°	2049	3594	4035
85°	1695	3013	3013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.7	3.4
10°-20°	420.5	9.6
20°-30°	629.1	14.4
30°-40°	745.0	17.1
40°-50°	759.3	17.4
50°-60°	680.5	15.6
60°-70°	532.8	12.2
70°-80°	343.6	7.9
80°-90°	101.5	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°	1197.3	27.5
0°-40°	1942.3	44.5
0°-60°	3382.2	77.6
0°-90°	4360.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4360.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1562	1562	1562	1562	1562	
5°	1546	1550	1558	1560	1562	147
15°	1471	1479	1491	1503	1505	415
25°	1330	1343	1371	1389	1398	612
35°	1139	1153	1192	1229	1241	712
45°	915	936	985	1035	1050	707
55°	682	704	763	816	838	611
65°	448	474	545	598	622	445
75°	228	262	336	393	413	244
85°	55	75	98	98	98	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1562.3	1562.3	1562.3	1562.3	1562.3
2.5°	1552.2	1556.2	1564.4	1566.4	1566.4
5°	1546.0	1550.1	1558.3	1560.3	1562.3
7.5°	1535.9	1537.9	1548.1	1552.2	1554.2
10°	1519.6	1523.7	1533.8	1539.9	1542.0
12.5°	1497.2	1503.3	1515.5	1523.7	1525.7
15°	1470.8	1478.9	1491.1	1503.3	1505.4
17.5°	1442.3	1450.4	1466.7	1481.0	1485.0
20°	1407.7	1417.9	1436.2	1452.5	1458.6
22.5°	1373.1	1381.3	1403.7	1424.0	1430.1
25°	1330.4	1342.6	1371.1	1389.4	1397.5
27.5°	1285.7	1299.9	1328.4	1352.8	1360.9
30°	1238.9	1253.1	1283.6	1314.1	1324.3
32.5°	1190.1	1206.3	1242.9	1273.5	1283.6
35°	1139.2	1153.4	1192.1	1228.7	1240.9
37.5°	1086.3	1098.5	1143.3	1181.9	1194.1
40°	1029.3	1045.6	1092.4	1137.2	1149.4
42.5°	972.4	990.7	1037.5	1086.3	1098.5
45°	915.4	935.8	984.6	1035.4	1049.7
47.5°	860.5	876.8	931.7	980.5	1000.9
50°	801.5	817.8	870.7	925.6	945.9
52.5°	740.5	762.9	819.8	872.7	897.1
55°	681.5	703.9	762.9	815.7	838.1
57.5°	626.6	644.9	705.9	760.8	783.2
60°	567.6	583.8	648.9	707.9	728.3
62.5°	504.5	528.9	596.0	651.0	675.4
65°	447.5	474.0	545.2	598.1	622.5
67.5°	394.6	419.1	488.2	545.2	571.6
70°	333.6	366.2	437.4	494.3	518.7
72.5°	284.8	313.3	386.5	443.5	469.9
75°	227.8	262.4	335.7	392.6	413.0
77.5°	181.1	215.6	284.8	329.6	339.7
80°	132.2	166.8	231.9	254.3	260.4
82.5°	89.5	122.1	166.8	172.9	174.9
85°	54.9	75.3	97.6	97.6	97.6
87.5°	26.4	30.5	34.6	32.5	32.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)