

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: P312426

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP125-W2A-U-3500K**

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: P312426
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L83050-S-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3500K 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: 4103.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

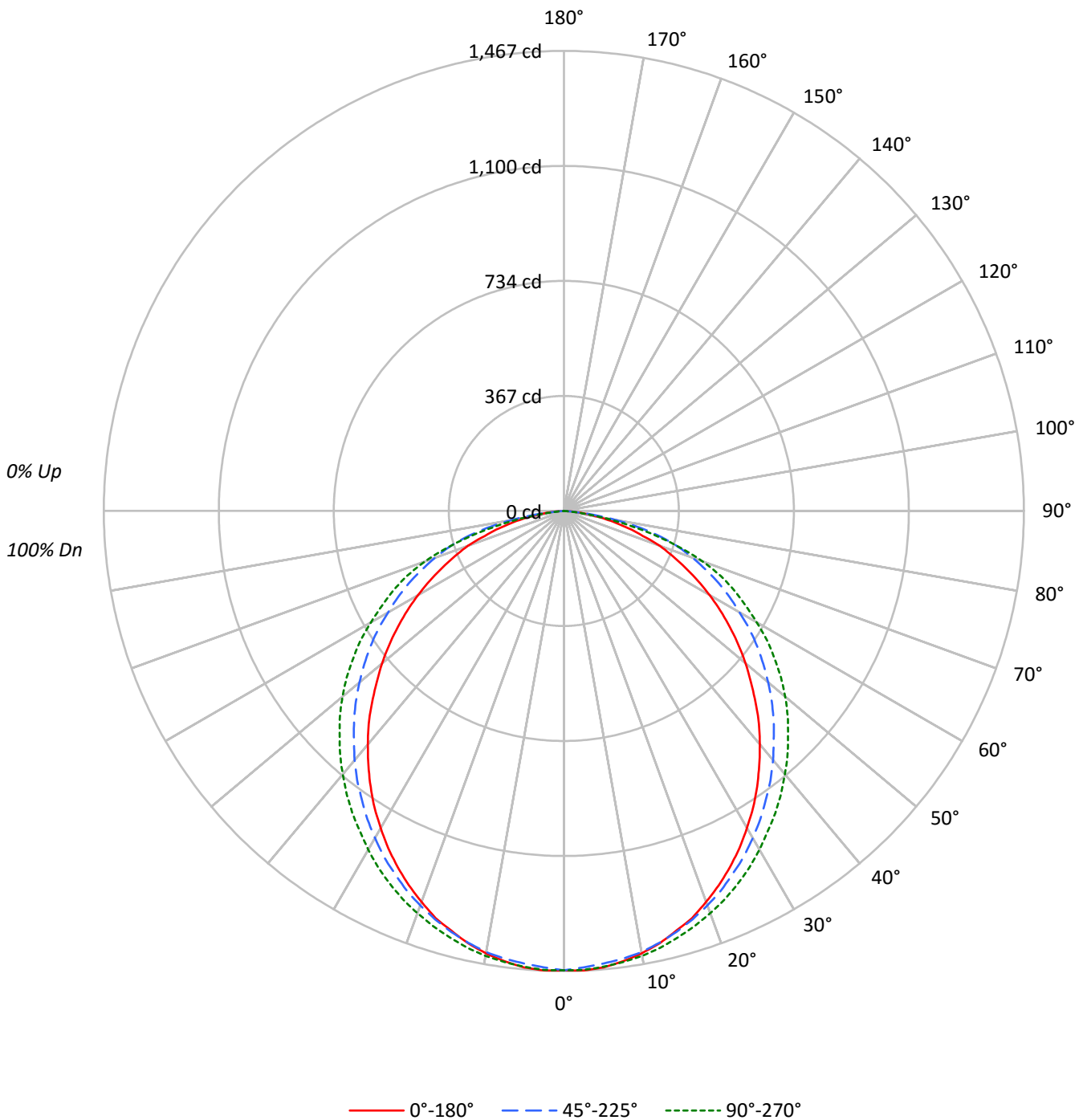
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	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	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3941	3941	3941
5°	3945	3913	3940
10°	3913	3902	3936
15°	3860	3871	3922
20°	3798	3833	3909
25°	3721	3787	3896
30°	3628	3742	3875
35°	3529	3689	3863
40°	3416	3645	3852
45°	3290	3600	3848
50°	3168	3560	3858
55°	3035	3531	3846
60°	2891	3482	3821
65°	2720	3472	3821
70°	2561	3441	3714
75°	2221	3363	3172
80°	1798	2712	2112
85°	1195	942	627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.3	3.4
10°-20°	393.6	9.6
20°-30°	590.4	14.4
30°-40°	704.3	17.2
40°-50°	728.1	17.7
50°-60°	664.7	16.2
60°-70°	523.1	12.7
70°-80°	304.5	7.4
80°-90°	56.1	1.4
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°	1122.3	27.4
0°-40°	1826.5	44.5
0°-60°	3219.3	78.5
0°-90°	4103.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4103.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1465	1465	1465	1465	1465	
5°	1461	1457	1448	1461	1459	138
15°	1385	1387	1389	1408	1408	391
25°	1253	1259	1276	1306	1312	577
35°	1074	1088	1123	1166	1176	671
45°	865	893	946	999	1011	668
55°	647	682	753	808	820	579
65°	427	472	545	588	600	424
75°	214	264	324	317	305	227
85°	39	55	30	24	20	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1464.7	1464.7	1464.7	1464.7	1464.7
2.5°	1466.7	1462.7	1456.6	1466.7	1464.7
5°	1460.6	1456.6	1448.4	1460.6	1458.6
7.5°	1448.4	1444.4	1440.3	1452.5	1450.5
10°	1432.2	1430.1	1428.1	1442.3	1440.3
12.5°	1411.8	1411.8	1409.8	1426.1	1426.1
15°	1385.4	1387.4	1389.4	1407.7	1407.7
17.5°	1361.0	1358.9	1365.0	1385.4	1387.4
20°	1326.4	1330.4	1338.6	1363.0	1365.0
22.5°	1291.8	1295.9	1310.1	1334.5	1340.6
25°	1253.1	1259.2	1275.5	1306.0	1312.1
27.5°	1212.4	1220.6	1243.0	1275.5	1281.6
30°	1167.7	1179.9	1204.3	1240.9	1247.0
32.5°	1122.9	1135.1	1165.7	1202.3	1210.4
35°	1074.1	1088.4	1122.9	1165.7	1175.8
37.5°	1023.3	1041.6	1082.3	1125.0	1137.2
40°	972.4	992.7	1037.5	1082.3	1096.5
42.5°	921.5	941.9	990.7	1041.6	1055.8
45°	864.6	893.1	946.0	998.8	1011.1
47.5°	809.7	840.2	899.2	952.1	968.3
50°	756.8	787.3	850.3	905.3	921.5
52.5°	701.8	734.4	801.5	858.5	872.7
55°	646.9	681.5	752.7	807.6	819.8
57.5°	592.0	628.6	701.8	754.7	769.0
60°	537.1	575.7	646.9	699.8	710.0
62.5°	482.1	522.8	596.1	642.8	653.0
65°	427.2	472.0	545.2	587.9	600.1
67.5°	374.3	419.1	490.3	531.0	541.1
70°	325.5	366.2	437.4	467.9	472.0
72.5°	264.5	315.3	384.5	400.8	390.6
75°	213.6	264.5	323.5	317.4	305.1
77.5°	162.7	213.6	252.3	231.9	215.6
80°	116.0	166.8	175.0	144.4	136.3
82.5°	75.3	116.0	97.6	75.3	61.0
85°	38.7	54.9	30.5	24.4	20.3
87.5°	12.2	8.1	4.1	4.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)