

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: P309113

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-S-CP125-W2A-U-2700K**

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: P309113
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-2700K
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: 3763.0 lumens
Efficiency: N/A
Efficacy: 101.2 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

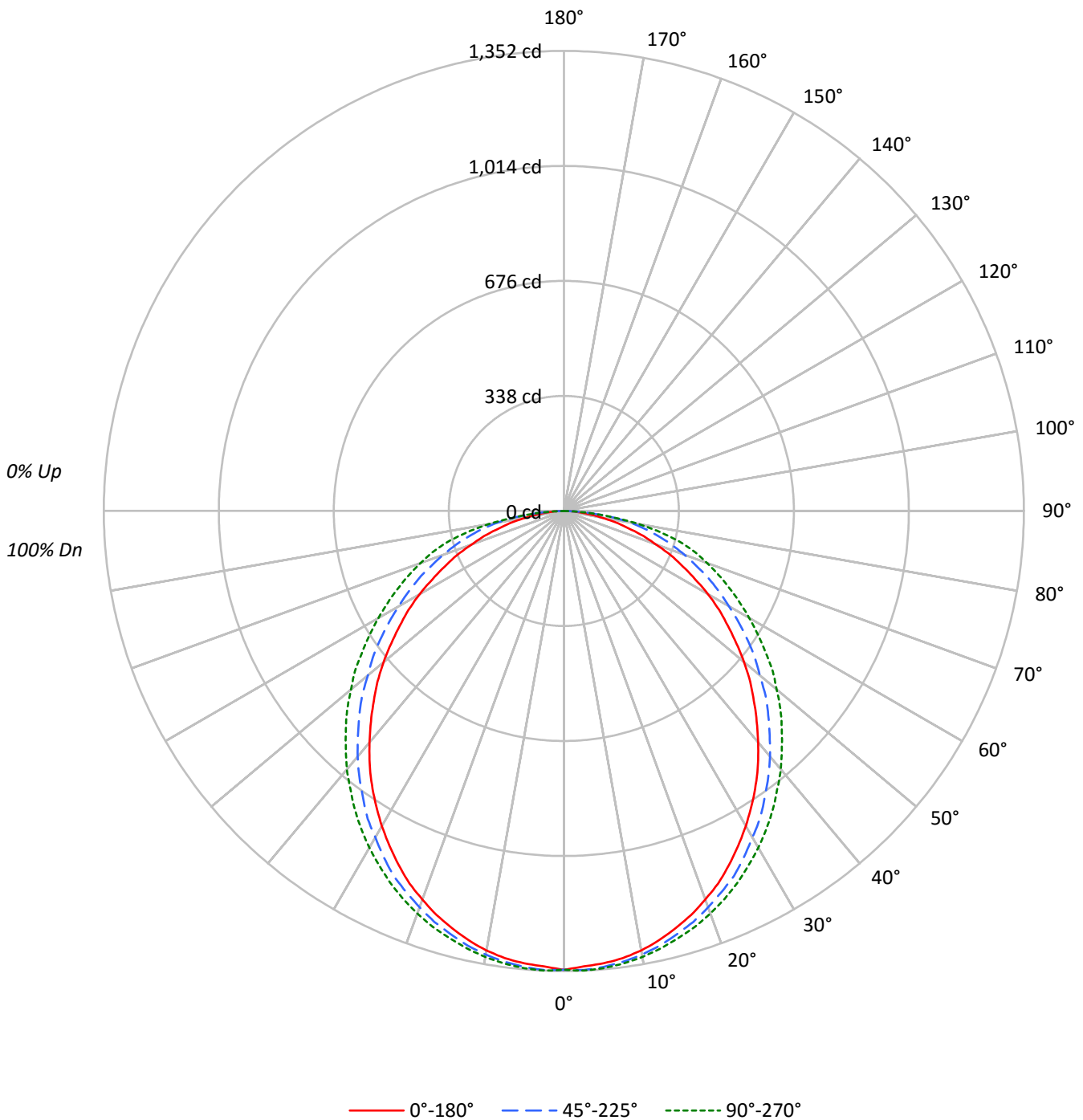
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3629	3629	3629
5°	3605	3633	3642
10°	3584	3617	3636
15°	3536	3585	3619
20°	3479	3550	3605
25°	3409	3514	3581
30°	3322	3443	3552
35°	3230	3380	3518
40°	3121	3312	3485
45°	3007	3234	3448
50°	2896	3146	3418
55°	2760	3089	3394
60°	2636	3014	3383
65°	2460	2996	3421
70°	2265	2970	3522
75°	2044	3012	3706
80°	1768	3102	3482
85°	1463	2603	2603



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.5	3.4
10°-20°	362.9	9.6
20°-30°	543.0	14.4
30°-40°	643.0	17.1
40°-50°	655.3	17.4
50°-60°	587.3	15.6
60°-70°	459.8	12.2
70°-80°	296.5	7.9
80°-90°	87.6	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°	1033.4	27.5
0°-40°	1676.4	44.5
0°-60°	2919.1	77.6
0°-90°	3763.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3763.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1348	1348	1348	1348	1348	
5°	1334	1338	1345	1347	1348	127
15°	1269	1276	1287	1298	1299	358
25°	1148	1159	1183	1199	1206	529
35°	983	996	1029	1060	1071	614
45°	790	808	850	894	906	610
55°	588	608	658	704	723	527
65°	386	409	470	516	537	384
75°	197	226	290	339	356	211
85°	47	65	84	84	84	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1348.4	1348.4	1348.4	1348.4	1348.4
2.5°	1339.6	1343.1	1350.2	1351.9	1351.9
5°	1334.4	1337.9	1344.9	1346.6	1348.4
7.5°	1325.6	1327.3	1336.1	1339.6	1341.4
10°	1311.5	1315.0	1323.8	1329.1	1330.8
12.5°	1292.2	1297.5	1308.0	1315.0	1316.8
15°	1269.4	1276.4	1286.9	1297.5	1299.2
17.5°	1244.8	1251.8	1265.9	1278.2	1281.7
20°	1215.0	1223.7	1239.5	1253.6	1258.9
22.5°	1185.1	1192.1	1211.5	1229.0	1234.3
25°	1148.2	1158.8	1183.4	1199.2	1206.2
27.5°	1109.6	1121.9	1146.5	1167.6	1174.6
30°	1069.2	1081.5	1107.9	1134.2	1143.0
32.5°	1027.1	1041.1	1072.8	1099.1	1107.9
35°	983.2	995.5	1028.9	1060.5	1071.0
37.5°	937.6	948.1	986.7	1020.1	1030.6
40°	888.4	902.4	942.8	981.5	992.0
42.5°	839.2	855.0	895.4	937.6	948.1
45°	790.1	807.6	849.8	893.7	906.0
47.5°	742.7	756.7	804.1	846.3	863.8
50°	691.8	705.8	751.5	798.9	816.4
52.5°	639.1	658.4	707.6	753.2	774.3
55°	588.2	607.5	658.4	704.0	723.4
57.5°	540.8	556.6	609.2	656.6	676.0
60°	489.8	503.9	560.1	611.0	628.6
62.5°	435.4	456.5	514.4	561.8	582.9
65°	386.3	409.1	470.5	516.2	537.3
67.5°	340.6	361.7	421.4	470.5	493.4
70°	287.9	316.0	377.5	426.6	447.7
72.5°	245.8	270.4	333.6	382.7	405.6
75°	196.6	226.5	289.7	338.9	356.4
77.5°	156.3	186.1	245.8	284.4	293.2
80°	114.1	144.0	200.2	219.5	224.7
82.5°	77.3	105.3	144.0	149.2	151.0
85°	47.4	65.0	84.3	84.3	84.3
87.5°	22.8	26.3	29.8	28.1	28.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)