

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: P308841

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-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: P308841
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-CA125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 4134.0 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

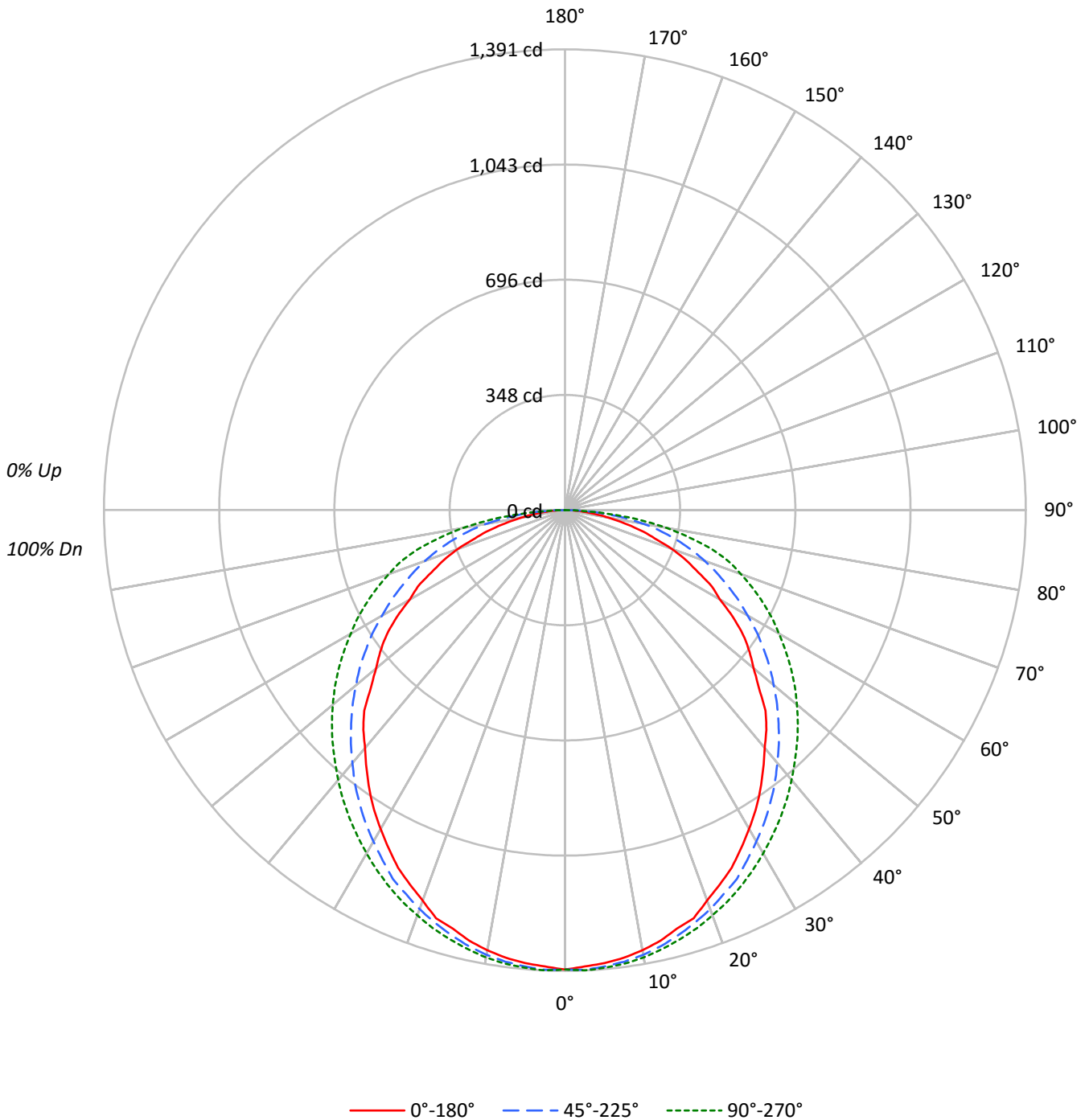
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3732	3732	3732
5°	3709	3736	3747
10°	3687	3725	3747
15°	3643	3699	3737
20°	3592	3672	3728
25°	3537	3648	3725
30°	3455	3590	3719
35°	3380	3549	3724
40°	3295	3503	3739
45°	3260	3471	3773
50°	3115	3446	3827
55°	3082	3435	3908
60°	2907	3429	4014
65°	2822	3452	4195
70°	2709	3533	4452
75°	2468	3641	4793
80°	2115	3772	4844
85°	1711	3603	4153



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	3.2
10°-20°	374.4	9.1
20°-30°	563.5	13.6
30°-40°	676.3	16.4
40°-50°	706.9	17.1
50°-60°	658.8	15.9
60°-70°	540.3	13.1
70°-80°	364.1	8.8
80°-90°	118.6	2.9
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°	1069.1	25.9
0°-40°	1745.4	42.2
0°-60°	3111.1	75.3
0°-90°	4134.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4134.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1387	1387	1387	1387	1387	
5°	1373	1377	1383	1385	1387	130
15°	1308	1316	1328	1340	1342	370
25°	1191	1199	1229	1246	1254	548
35°	1029	1043	1080	1118	1134	643
45°	857	863	912	968	991	654
55°	657	669	732	801	833	582
65°	443	463	542	621	659	441
75°	237	263	350	429	461	250
85°	55	79	117	136	134	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1387.0	1387.0	1387.0	1387.0	1387.0
2.5°	1379.1	1383.0	1389.0	1390.9	1390.9
5°	1373.1	1377.1	1383.0	1385.0	1387.0
7.5°	1363.2	1367.2	1375.1	1379.1	1381.1
10°	1349.4	1353.4	1363.2	1369.2	1371.2
12.5°	1331.6	1335.5	1347.4	1355.3	1357.3
15°	1307.8	1315.8	1327.6	1339.5	1341.5
17.5°	1292.0	1290.0	1305.9	1319.7	1323.7
20°	1254.4	1264.3	1282.1	1298.0	1301.9
22.5°	1222.8	1230.7	1254.4	1272.2	1280.1
25°	1191.1	1199.0	1228.7	1246.5	1254.4
27.5°	1151.5	1163.4	1191.1	1216.8	1226.7
30°	1112.0	1123.8	1155.5	1185.2	1197.0
32.5°	1072.4	1086.2	1119.9	1151.5	1165.4
35°	1028.9	1042.7	1080.3	1117.9	1133.7
37.5°	983.4	1001.2	1040.7	1082.3	1100.1
40°	937.9	955.7	997.2	1044.7	1064.5
42.5°	900.3	908.2	955.7	1007.1	1026.9
45°	856.7	862.7	912.1	967.5	991.3
47.5°	793.4	815.2	868.6	929.9	953.7
50°	744.0	767.7	823.1	888.4	914.1
52.5°	702.4	718.2	779.6	844.9	874.5
55°	656.9	668.8	732.1	801.3	833.0
57.5°	601.5	623.3	686.6	757.8	789.5
60°	540.2	567.9	637.1	714.3	745.9
62.5°	500.6	516.4	591.6	668.8	704.4
65°	443.2	463.0	542.1	621.3	658.9
67.5°	395.7	415.5	496.6	575.8	613.4
70°	344.3	364.1	449.1	528.3	565.9
72.5°	284.9	312.6	401.7	480.8	520.4
75°	237.4	263.2	350.2	429.4	461.0
77.5°	184.0	217.6	298.8	364.1	387.8
80°	136.5	170.2	243.4	290.9	312.6
82.5°	93.0	126.6	182.0	217.6	229.5
85°	55.4	79.1	116.7	136.5	134.5
87.5°	25.7	33.6	47.5	47.5	45.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)