

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: P308797

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CA125-W2A-U-6500K**

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: P308797
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: 22FCZ2-39HE-UNV-L82765-CA125-W2A-U-6500K
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: 3694.0 lumens
Efficiency: N/A
Efficacy: 109.3 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

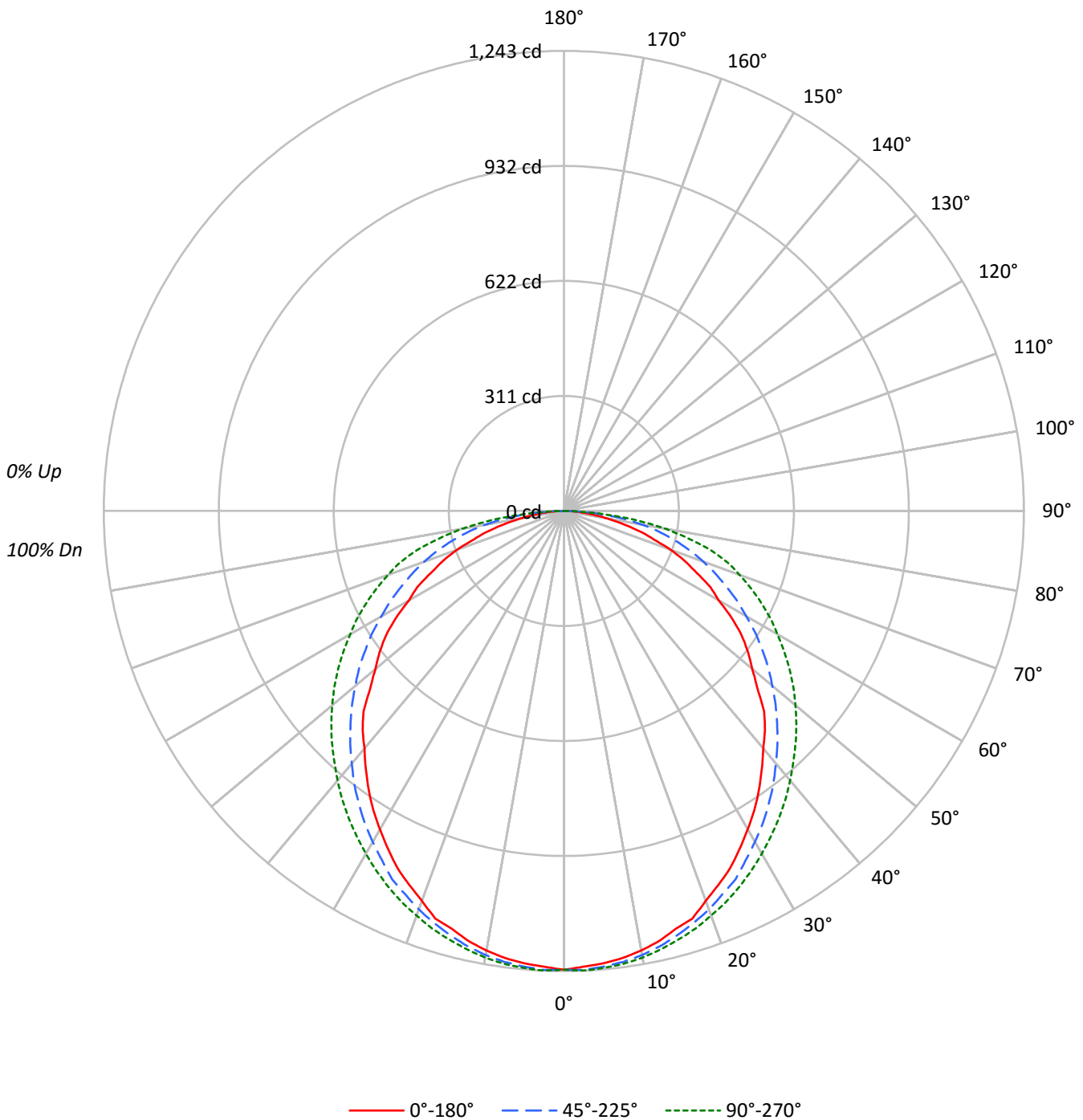
Input Watts (W): 33.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3335	3335	3335
5°	3314	3338	3348
10°	3295	3329	3348
15°	3256	3305	3339
20°	3210	3281	3331
25°	3160	3260	3328
30°	3087	3208	3324
35°	3020	3171	3328
40°	2944	3130	3341
45°	2913	3102	3371
50°	2783	3079	3419
55°	2754	3069	3492
60°	2598	3064	3587
65°	2521	3084	3748
70°	2420	3157	3978
75°	2206	3253	4283
80°	1891	3371	4328
85°	1528	3220	3711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.3	3.2
10°-20°	334.6	9.1
20°-30°	503.5	13.6
30°-40°	604.3	16.4
40°-50°	631.6	17.1
50°-60°	588.6	15.9
60°-70°	482.8	13.1
70°-80°	325.3	8.8
80°-90°	106.0	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°	955.3	25.9
0°-40°	1559.7	42.2
0°-60°	2779.9	75.3
0°-90°	3694.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3694.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1239	1239	1239	1239	1239	
5°	1227	1230	1236	1238	1239	116
15°	1169	1176	1186	1197	1199	330
25°	1064	1071	1098	1114	1121	489
35°	919	932	965	999	1013	575
45°	766	771	815	865	886	585
55°	587	598	654	716	744	520
65°	396	414	484	555	589	394
75°	212	235	313	384	412	223
85°	50	71	104	122	120	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1239.4	1239.4	1239.4	1239.4	1239.4
2.5°	1232.3	1235.8	1241.1	1242.9	1242.9
5°	1227.0	1230.5	1235.8	1237.6	1239.4
7.5°	1218.2	1221.7	1228.8	1232.3	1234.1
10°	1205.8	1209.3	1218.2	1223.5	1225.2
12.5°	1189.9	1193.4	1204.0	1211.1	1212.8
15°	1168.6	1175.7	1186.3	1196.9	1198.7
17.5°	1154.5	1152.7	1166.9	1179.3	1182.8
20°	1120.9	1129.8	1145.7	1159.8	1163.3
22.5°	1092.6	1099.7	1120.9	1136.8	1143.9
25°	1064.3	1071.4	1097.9	1113.8	1120.9
27.5°	1029.0	1039.6	1064.3	1087.3	1096.2
30°	993.6	1004.2	1032.5	1059.0	1069.6
32.5°	958.3	970.6	1000.7	1029.0	1041.4
35°	919.4	931.7	965.3	998.9	1013.1
37.5°	878.7	894.6	930.0	967.1	983.0
40°	838.0	853.9	891.1	933.5	951.2
42.5°	804.4	811.5	853.9	899.9	917.6
45°	765.5	770.8	815.0	864.6	885.8
47.5°	709.0	728.4	776.2	831.0	852.2
50°	664.8	686.0	735.5	793.8	816.8
52.5°	627.6	641.8	696.6	754.9	781.5
55°	587.0	597.6	654.2	716.0	744.3
57.5°	537.5	556.9	613.5	677.1	705.4
60°	482.7	507.4	569.3	638.2	666.5
62.5°	447.3	461.4	528.6	597.6	629.4
65°	396.0	413.7	484.4	555.2	588.7
67.5°	353.6	371.3	443.8	514.5	548.1
70°	307.6	325.3	401.3	472.1	505.6
72.5°	254.6	279.3	358.9	429.6	465.0
75°	212.2	235.1	312.9	383.7	411.9
77.5°	164.4	194.5	267.0	325.3	346.5
80°	122.0	152.0	217.5	259.9	279.3
82.5°	83.1	113.2	162.7	194.5	205.1
85°	49.5	70.7	104.3	122.0	120.2
87.5°	23.0	30.1	42.4	42.4	40.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)