

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: P308804

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP125-W2A-U-5500K**

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: P308804
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-CP125-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 3604.0 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

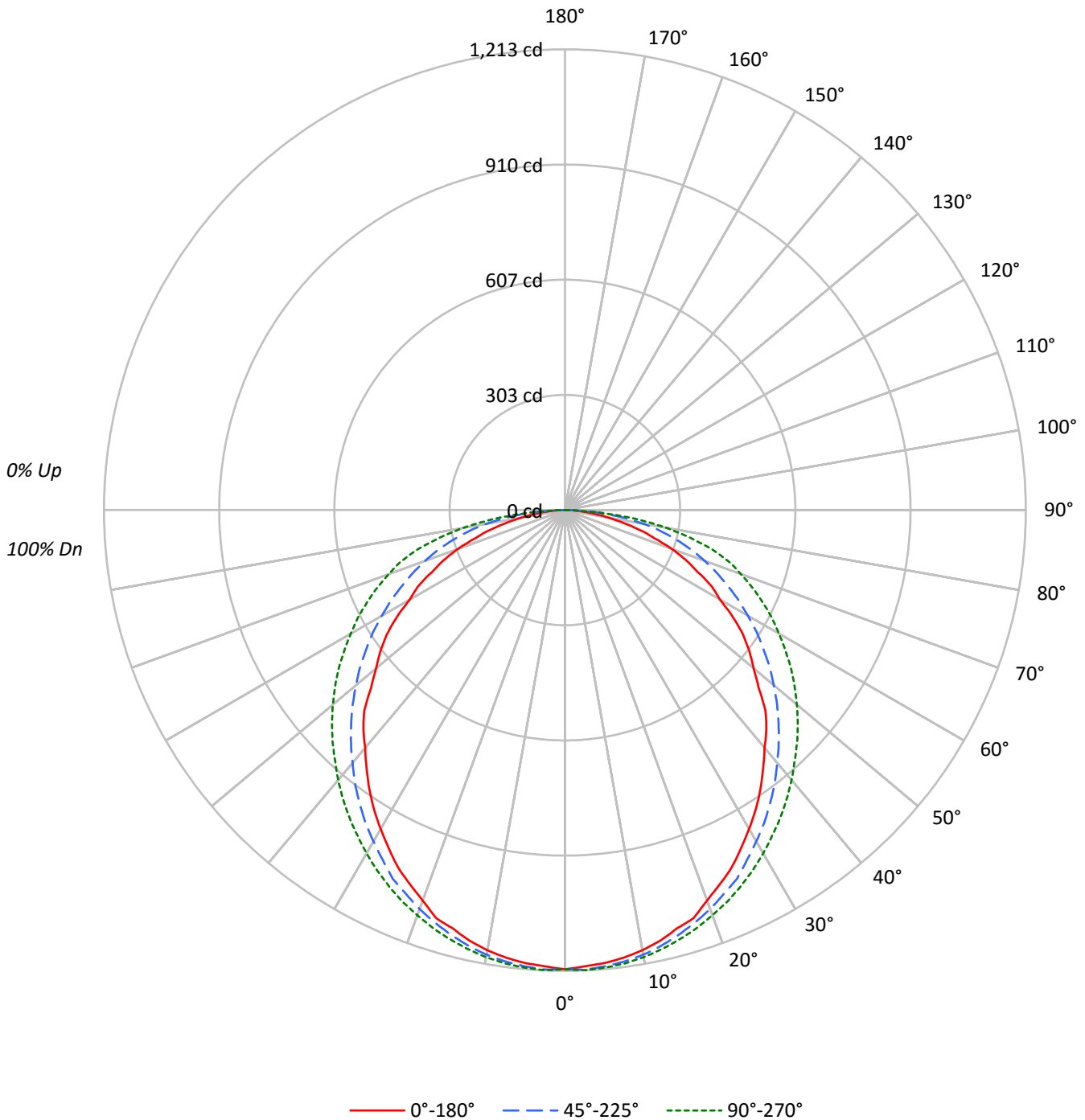
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3254	3254	3254
5°	3234	3257	3266
10°	3215	3248	3266
15°	3176	3224	3258
20°	3132	3201	3250
25°	3083	3181	3247
30°	3012	3130	3243
35°	2947	3094	3247
40°	2872	3054	3260
45°	2842	3026	3289
50°	2715	3004	3336
55°	2687	2994	3407
60°	2534	2989	3500
65°	2460	3009	3657
70°	2361	3081	3881
75°	2152	3174	4179
80°	1844	3288	4223
85°	1491	3143	3622



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	3.2
10°-20°	326.4	9.1
20°-30°	491.3	13.6
30°-40°	589.6	16.4
40°-50°	616.2	17.1
50°-60°	574.3	15.9
60°-70°	471.0	13.1
70°-80°	317.4	8.8
80°-90°	103.4	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°	932.1	25.9
0°-40°	1521.7	42.2
0°-60°	2712.2	75.3
0°-90°	3604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3604.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1209	1209	1209	1209	1209	
5°	1197	1200	1206	1207	1209	114
15°	1140	1147	1157	1168	1170	322
25°	1038	1045	1071	1087	1094	477
35°	897	909	942	975	988	561
45°	747	752	795	844	864	571
55°	573	583	638	699	726	507
65°	386	404	473	542	574	384
75°	207	229	305	374	402	218
85°	48	69	102	119	117	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1209.2	1209.2	1209.2	1209.2	1209.2
2.5°	1202.3	1205.7	1210.9	1212.6	1212.6
5°	1197.1	1200.5	1205.7	1207.4	1209.2
7.5°	1188.5	1191.9	1198.8	1202.3	1204.0
10°	1176.4	1179.8	1188.5	1193.6	1195.4
12.5°	1160.9	1164.3	1174.7	1181.6	1183.3
15°	1140.2	1147.1	1157.4	1167.8	1169.5
17.5°	1126.4	1124.7	1138.5	1150.5	1154.0
20°	1093.6	1102.2	1117.8	1131.6	1135.0
22.5°	1066.0	1072.9	1093.6	1109.1	1116.0
25°	1038.4	1045.3	1071.2	1086.7	1093.6
27.5°	1003.9	1014.3	1038.4	1060.8	1069.5
30°	969.4	979.8	1007.4	1033.2	1043.6
32.5°	934.9	947.0	976.3	1003.9	1016.0
35°	897.0	909.0	941.8	974.6	988.4
37.5°	857.3	872.8	907.3	943.5	959.1
40°	817.6	833.1	869.4	910.8	928.0
42.5°	784.8	791.7	833.1	878.0	895.2
45°	746.9	752.1	795.2	843.5	864.2
47.5°	691.7	710.7	757.2	810.7	831.4
50°	648.6	669.3	717.6	774.5	796.9
52.5°	612.3	626.1	679.6	736.5	762.4
55°	572.7	583.0	638.2	698.6	726.2
57.5°	524.4	543.4	598.5	660.6	688.2
60°	470.9	495.1	555.4	622.7	650.3
62.5°	436.4	450.2	515.8	583.0	614.1
65°	386.4	403.6	472.6	541.6	574.4
67.5°	345.0	362.2	433.0	502.0	534.7
70°	300.1	317.4	391.6	460.6	493.3
72.5°	248.4	272.5	350.2	419.2	453.7
75°	207.0	229.4	305.3	374.3	401.9
77.5°	160.4	189.7	260.5	317.4	338.1
80°	119.0	148.3	212.2	253.6	272.5
82.5°	81.1	110.4	158.7	189.7	200.1
85°	48.3	69.0	101.8	119.0	117.3
87.5°	22.4	29.3	41.4	41.4	39.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)