

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: P308802

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP125-W2A-U-4500K**

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: P308802
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-4500K
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: 3520.0 lumens
Efficiency: N/A
Efficacy: 106.7 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

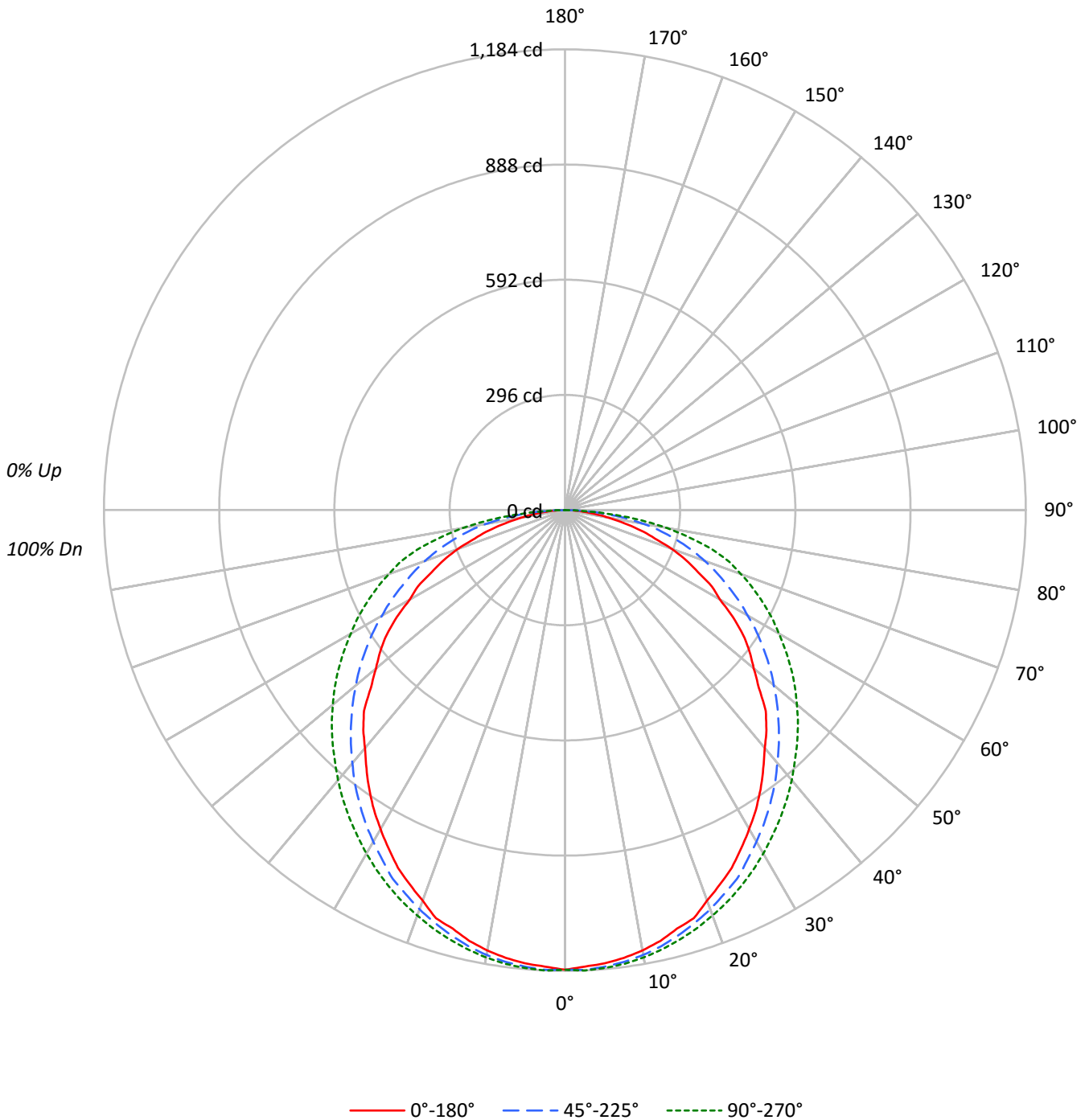
Input Watts (W): 33
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3178	3178	3178
5°	3158	3181	3190
10°	3140	3172	3190
15°	3102	3149	3182
20°	3059	3126	3174
25°	3011	3106	3171
30°	2942	3057	3167
35°	2878	3022	3171
40°	2805	2983	3184
45°	2776	2956	3212
50°	2652	2934	3258
55°	2624	2924	3328
60°	2475	2920	3418
65°	2403	2939	3572
70°	2306	3009	3791
75°	2102	3100	4081
80°	1801	3211	4125
85°	1457	3069	3538



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	3.2
10°-20°	318.8	9.1
20°-30°	479.8	13.6
30°-40°	575.9	16.4
40°-50°	601.9	17.1
50°-60°	560.9	15.9
60°-70°	460.0	13.1
70°-80°	310.0	8.8
80°-90°	101.0	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°	910.3	25.9
0°-40°	1486.2	42.2
0°-60°	2649.0	75.3
0°-90°	3520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1181	1181	1181	1181	1181	
5°	1169	1173	1178	1179	1181	111
15°	1114	1120	1130	1141	1142	315
25°	1014	1021	1046	1061	1068	466
35°	876	888	920	952	965	548
45°	730	734	777	824	844	557
55°	559	569	623	682	709	496
65°	377	394	462	529	561	375
75°	202	224	298	366	392	213
85°	47	67	99	116	115	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1181.0	1181.0	1181.0	1181.0	1181.0
2.5°	1174.3	1177.6	1182.7	1184.4	1184.4
5°	1169.2	1172.6	1177.6	1179.3	1181.0
7.5°	1160.8	1164.1	1170.9	1174.3	1175.9
10°	1149.0	1152.3	1160.8	1165.8	1167.5
12.5°	1133.8	1137.2	1147.3	1154.0	1155.7
15°	1113.6	1120.3	1130.4	1140.6	1142.2
17.5°	1100.1	1098.4	1111.9	1123.7	1127.1
20°	1068.1	1076.5	1091.7	1105.2	1108.5
22.5°	1041.2	1047.9	1068.1	1083.3	1090.0
25°	1014.2	1020.9	1046.2	1061.4	1068.1
27.5°	980.5	990.6	1014.2	1036.1	1044.5
30°	946.8	956.9	983.9	1009.1	1019.3
32.5°	913.1	924.9	953.6	980.5	992.3
35°	876.1	887.8	919.9	951.9	965.3
37.5°	837.3	852.5	886.2	921.5	936.7
40°	798.6	813.7	849.1	889.5	906.4
42.5°	766.5	773.3	813.7	857.5	874.4
45°	729.5	734.5	776.7	823.8	844.0
47.5°	675.6	694.1	739.6	791.8	812.0
50°	633.5	653.7	700.8	756.4	778.3
52.5°	598.1	611.6	663.8	719.4	744.6
55°	559.3	569.4	623.3	682.3	709.3
57.5°	512.2	530.7	584.6	645.2	672.2
60°	459.9	483.5	542.5	608.2	635.1
62.5°	426.2	439.7	503.7	569.4	599.8
65°	377.4	394.2	461.6	529.0	561.0
67.5°	336.9	353.8	422.9	490.3	522.3
70°	293.1	310.0	382.4	449.8	481.8
72.5°	242.6	266.2	342.0	409.4	443.1
75°	202.2	224.1	298.2	365.6	392.5
77.5°	156.7	185.3	254.4	310.0	330.2
80°	116.2	144.9	207.2	247.7	266.2
82.5°	79.2	107.8	155.0	185.3	195.4
85°	47.2	67.4	99.4	116.2	114.6
87.5°	21.9	28.6	40.4	40.4	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)