

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: P308861

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP250-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: P308861
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-CP250-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 3389.0 lumens
Efficiency: N/A
Efficacy: 91.1 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

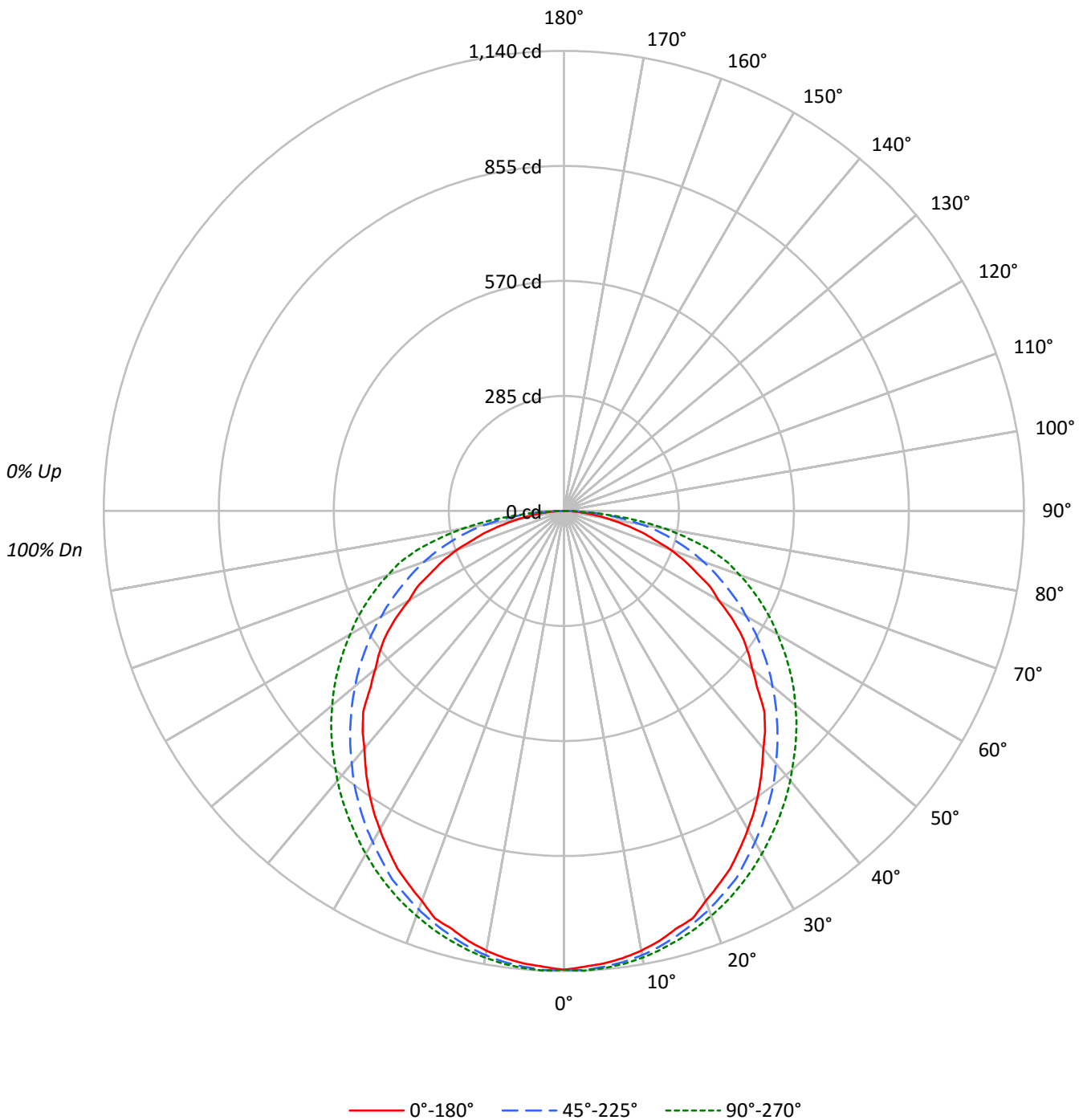
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3060	3060	3060
5°	3041	3063	3071
10°	3023	3054	3072
15°	2987	3032	3064
20°	2945	3010	3056
25°	2899	2991	3053
30°	2833	2944	3049
35°	2771	2909	3053
40°	2701	2872	3065
45°	2673	2846	3092
50°	2553	2825	3137
55°	2526	2815	3204
60°	2383	2811	3291
65°	2313	2830	3439
70°	2220	2897	3650
75°	2023	2985	3929
80°	1734	3092	3972
85°	1402	2955	3406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.6	3.2
10°-20°	306.9	9.1
20°-30°	461.9	13.6
30°-40°	554.4	16.4
40°-50°	579.5	17.1
50°-60°	540.0	15.9
60°-70°	442.9	13.1
70°-80°	298.5	8.8
80°-90°	97.2	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°	876.5	25.9
0°-40°	1430.9	42.2
0°-60°	2550.4	75.3
0°-90°	3389.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3389.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1137	1137	1137	1137	1137	
5°	1126	1129	1134	1135	1137	107
15°	1072	1079	1088	1098	1100	303
25°	976	983	1007	1022	1028	449
35°	844	855	886	916	929	527
45°	702	707	748	793	813	537
55°	538	548	600	657	683	477
65°	363	380	444	509	540	361
75°	195	216	287	352	378	205
85°	45	65	96	112	110	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1137.0	1137.0	1137.0	1137.0	1137.0
2.5°	1130.6	1133.8	1138.7	1140.3	1140.3
5°	1125.7	1128.9	1133.8	1135.4	1137.0
7.5°	1117.6	1120.8	1127.3	1130.6	1132.2
10°	1106.2	1109.5	1117.6	1122.4	1124.1
12.5°	1091.6	1094.9	1104.6	1111.1	1112.7
15°	1072.2	1078.6	1088.4	1098.1	1099.7
17.5°	1059.2	1057.6	1070.5	1081.9	1085.1
20°	1028.4	1036.5	1051.1	1064.0	1067.3
22.5°	1002.4	1008.9	1028.4	1043.0	1049.4
25°	976.5	982.9	1007.3	1021.9	1028.4
27.5°	944.0	953.7	976.5	997.5	1005.7
30°	911.6	921.3	947.3	971.6	981.3
32.5°	879.1	890.5	918.1	944.0	955.4
35°	843.5	854.8	885.6	916.4	929.4
37.5°	806.1	820.7	853.2	887.2	901.8
40°	768.8	783.4	817.5	856.4	872.6
42.5°	738.0	744.5	783.4	825.6	841.8
45°	702.3	707.2	747.8	793.2	812.6
47.5°	650.4	668.3	712.1	762.4	781.8
50°	609.9	629.3	674.8	728.3	749.4
52.5°	575.8	588.8	639.1	692.6	716.9
55°	538.5	548.2	600.1	656.9	682.9
57.5°	493.1	510.9	562.8	621.2	647.2
60°	442.8	465.5	522.3	585.6	611.5
62.5°	410.4	423.3	485.0	548.2	577.4
65°	363.3	379.6	444.4	509.3	540.1
67.5°	324.4	340.6	407.1	472.0	502.8
70°	282.2	298.5	368.2	433.1	463.9
72.5°	233.6	256.3	329.3	394.2	426.6
75°	194.6	215.7	287.1	352.0	377.9
77.5°	150.8	178.4	244.9	298.5	317.9
80°	111.9	139.5	199.5	238.4	256.3
82.5°	76.2	103.8	149.2	178.4	188.2
85°	45.4	64.9	95.7	111.9	110.3
87.5°	21.1	27.6	38.9	38.9	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)