

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: P309046

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5000K**

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: P309046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 3119.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

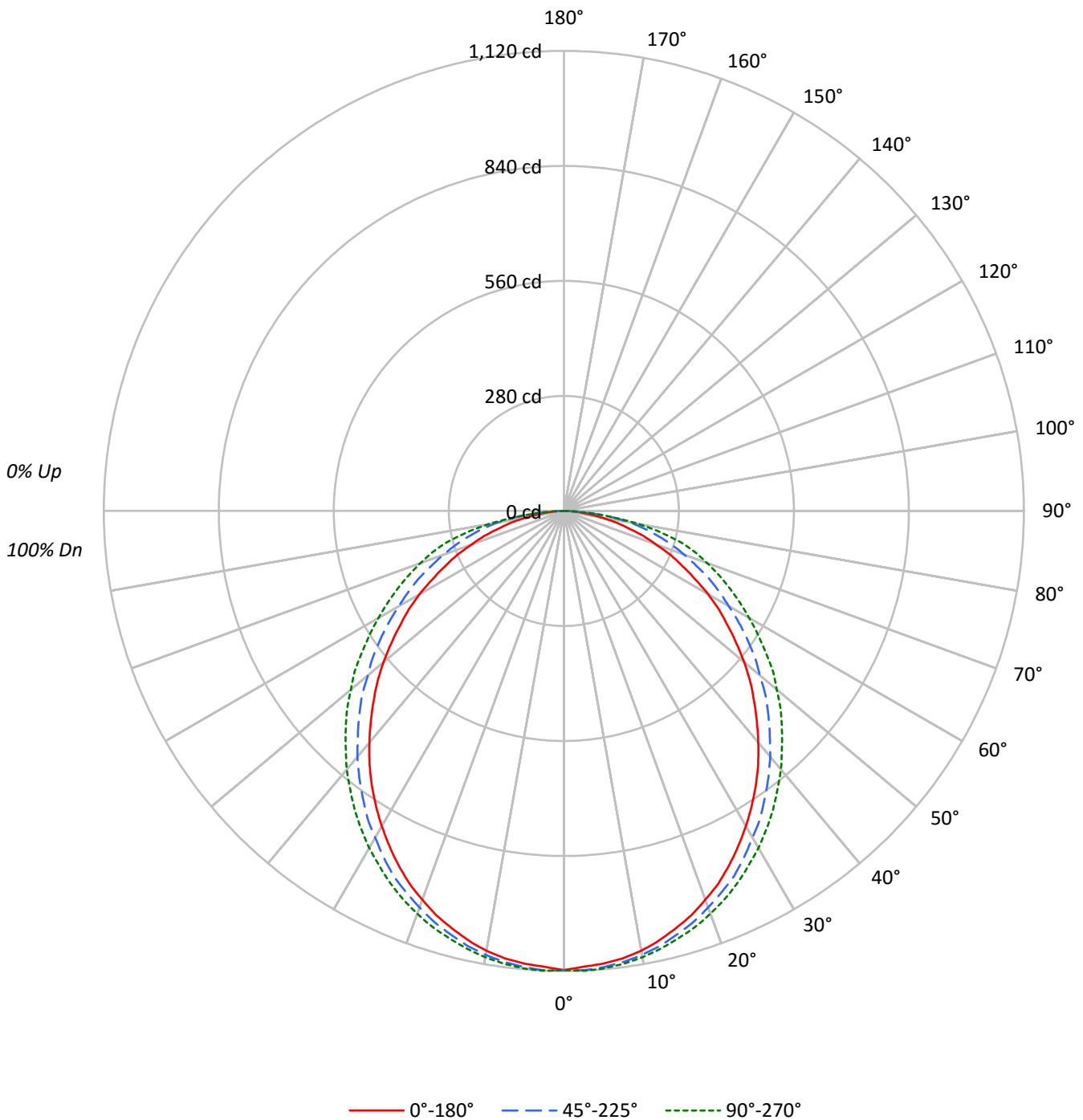
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309046

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P309046

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5000K

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3007	3007	3007
5°	2988	3011	3019
10°	2970	2998	3014
15°	2931	2972	3000
20°	2884	2942	2988
25°	2826	2912	2969
30°	2754	2853	2944
35°	2677	2802	2916
40°	2587	2745	2888
45°	2492	2680	2858
50°	2400	2607	2833
55°	2287	2560	2813
60°	2185	2498	2804
65°	2039	2483	2835
70°	1878	2462	2920
75°	1695	2496	3071
80°	1466	2571	2887
85°	1213	2158	2158



TEST NUMBER: P309046

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.7	3.4
10°-20°	300.8	9.6
20°-30°	450.0	14.4
30°-40°	533.0	17.1
40°-50°	543.2	17.4
50°-60°	486.8	15.6
60°-70°	381.1	12.2
70°-80°	245.8	7.9
80°-90°	72.6	2.3
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°	856.5	27.5
0°-40°	1389.5	44.5
0°-60°	2419.5	77.6
0°-90°	3119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3119.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1106	1109	1115	1116	1118	105
15°	1052	1058	1067	1075	1077	297
25°	952	960	981	994	1000	438
35°	815	825	853	879	888	509
45°	655	669	704	741	751	506
55°	488	504	546	584	600	437
65°	320	339	390	428	445	318
75°	163	188	240	281	295	175
85°	39	54	70	70	70	46
90°	0	0	0	0	0	



TEST NUMBER: P309046

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1117.6	1117.6	1117.6	1117.6	1117.6
2.5°	1110.4	1113.3	1119.1	1120.5	1120.5
5°	1106.0	1108.9	1114.7	1116.2	1117.6
7.5°	1098.7	1100.2	1107.4	1110.4	1111.8
10°	1087.1	1090.0	1097.3	1101.6	1103.1
12.5°	1071.1	1075.4	1084.2	1090.0	1091.4
15°	1052.1	1058.0	1066.7	1075.4	1076.9
17.5°	1031.8	1037.6	1049.2	1059.4	1062.3
20°	1007.0	1014.3	1027.4	1039.1	1043.4
22.5°	982.3	988.1	1004.1	1018.7	1023.0
25°	951.7	960.5	980.8	993.9	999.8
27.5°	919.7	929.9	950.3	967.7	973.6
30°	886.2	896.4	918.3	940.1	947.4
32.5°	851.3	863.0	889.2	911.0	918.3
35°	814.9	825.1	852.8	879.0	887.7
37.5°	777.1	785.8	817.9	845.5	854.2
40°	736.4	748.0	781.5	813.5	822.2
42.5°	695.6	708.7	742.2	777.1	785.8
45°	654.9	669.4	704.3	740.7	750.9
47.5°	615.6	627.2	666.5	701.4	716.0
50°	573.4	585.0	622.8	662.1	676.7
52.5°	529.7	545.7	586.5	624.3	641.8
55°	487.5	503.5	545.7	583.6	599.6
57.5°	448.2	461.3	505.0	544.3	560.3
60°	406.0	417.7	464.2	506.4	521.0
62.5°	360.9	378.4	426.4	465.7	483.1
65°	320.2	339.1	390.0	427.8	445.3
67.5°	282.3	299.8	349.3	390.0	408.9
70°	238.7	261.9	312.9	353.6	371.1
72.5°	203.7	224.1	276.5	317.2	336.2
75°	163.0	187.7	240.1	280.9	295.4
77.5°	129.5	154.3	203.7	235.8	243.0
80°	94.6	119.3	165.9	181.9	186.3
82.5°	64.0	87.3	119.3	123.7	125.2
85°	39.3	53.8	69.9	69.9	69.9
87.5°	18.9	21.8	24.7	23.3	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)