

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: P309047

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CP250-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: P309047
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-5500K
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: 3150.0 lumens
Efficiency: N/A
Efficacy: 110.9 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

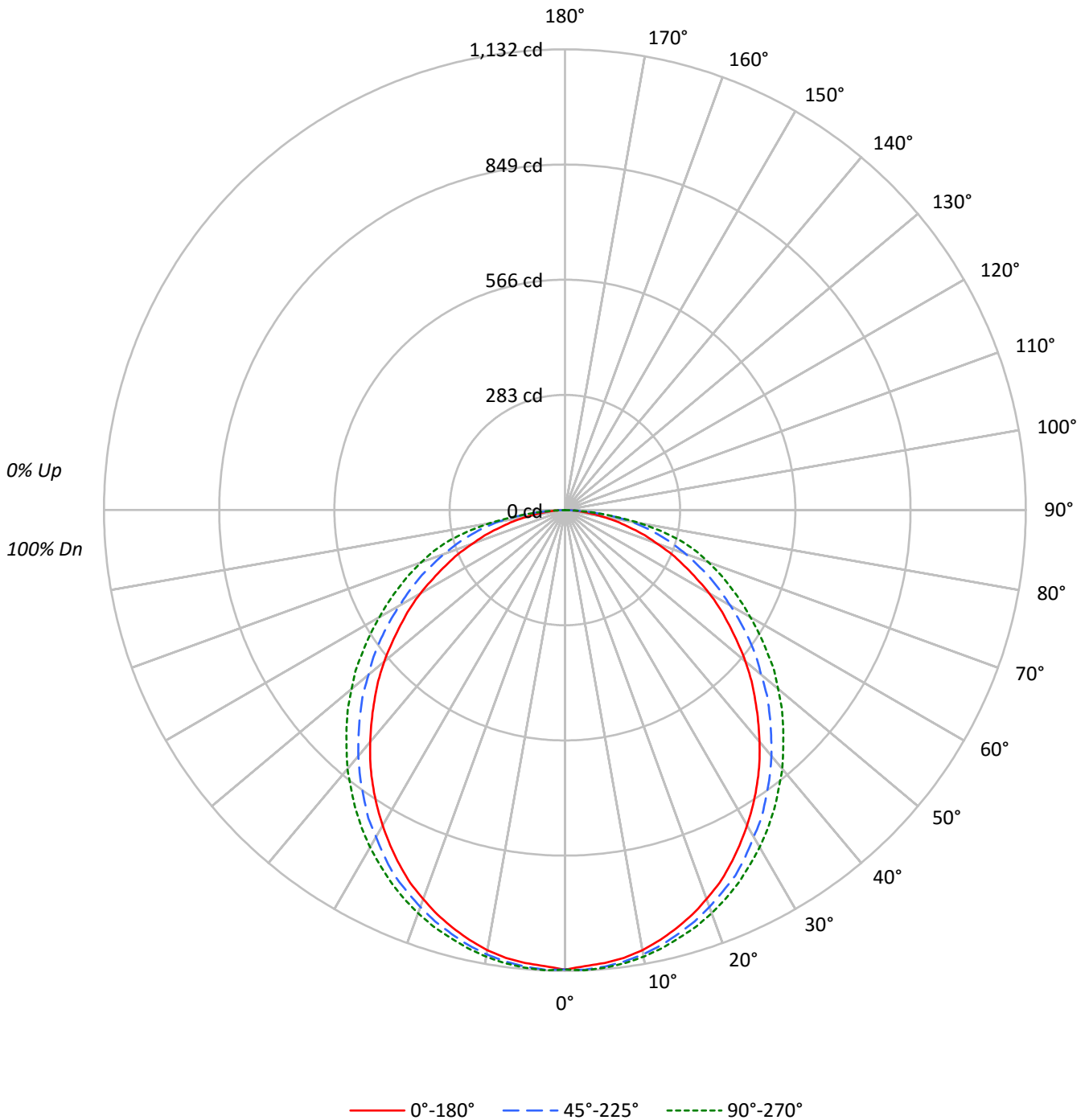
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309047

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P309047

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5500K

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°	3037	3037	3037
5°	3017	3041	3049
10°	3000	3028	3044
15°	2960	3001	3030
20°	2912	2971	3018
25°	2854	2941	2998
30°	2781	2882	2973
35°	2704	2829	2945
40°	2612	2772	2917
45°	2517	2707	2886
50°	2424	2633	2861
55°	2310	2586	2841
60°	2207	2523	2832
65°	2059	2508	2863
70°	1896	2486	2949
75°	1711	2521	3103
80°	1480	2596	2915
85°	1226	2177	2177



TEST NUMBER: P309047

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CP250-W2A-U-5500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.7	3.4
10°-20°	303.8	9.6
20°-30°	454.5	14.4
30°-40°	538.3	17.1
40°-50°	548.6	17.4
50°-60°	491.7	15.6
60°-70°	384.9	12.2
70°-80°	248.2	7.9
80°-90°	73.3	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°	865.0	27.5
0°-40°	1403.3	44.5
0°-60°	2443.5	77.6
0°-90°	3150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3150.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1129	1129	1129	1129	1129	
5°	1117	1120	1126	1127	1129	106
15°	1063	1068	1077	1086	1088	300
25°	961	970	991	1004	1010	442
35°	823	833	861	888	896	514
45°	661	676	711	748	758	511
55°	492	508	551	589	606	441
65°	323	342	394	432	450	321
75°	165	190	242	284	298	176
85°	40	54	70	70	70	47
90°	0	0	0	0	0	



TEST NUMBER: P309047

CATALOG NUMBER: 22FC22-34HE-UNV-L82765-S-CP250-W2A-U-5500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1128.7	1128.7	1128.7	1128.7	1128.7
2.5°	1121.4	1124.3	1130.2	1131.7	1131.7
5°	1117.0	1119.9	1125.8	1127.3	1128.7
7.5°	1109.6	1111.1	1118.5	1121.4	1122.9
10°	1097.9	1100.8	1108.2	1112.6	1114.0
12.5°	1081.7	1086.1	1094.9	1100.8	1102.3
15°	1062.6	1068.5	1077.3	1086.1	1087.6
17.5°	1042.0	1047.9	1059.7	1070.0	1072.9
20°	1017.0	1024.4	1037.6	1049.4	1053.8
22.5°	992.1	997.9	1014.1	1028.8	1033.2
25°	961.2	970.0	990.6	1003.8	1009.7
27.5°	928.9	939.1	959.7	977.4	983.2
30°	895.1	905.3	927.4	949.4	956.8
32.5°	859.8	871.5	898.0	920.0	927.4
35°	823.0	833.3	861.3	887.7	896.5
37.5°	784.8	793.6	826.0	853.9	862.7
40°	743.7	755.4	789.2	821.6	830.4
42.5°	702.5	715.8	749.6	784.8	793.6
45°	661.4	676.1	711.3	748.1	758.4
47.5°	621.7	633.4	673.1	708.4	723.1
50°	579.1	590.8	629.0	668.7	683.4
52.5°	535.0	551.1	592.3	630.5	648.1
55°	492.4	508.5	551.1	589.4	605.5
57.5°	452.7	465.9	510.0	549.7	565.8
60°	410.1	421.8	468.8	511.5	526.2
62.5°	364.5	382.1	430.6	470.3	487.9
65°	323.3	342.4	393.9	432.1	449.7
67.5°	285.1	302.8	352.7	393.9	413.0
70°	241.0	264.5	316.0	357.1	374.8
72.5°	205.8	226.3	279.2	320.4	339.5
75°	164.6	189.6	242.5	283.7	298.4
77.5°	130.8	155.8	205.8	238.1	245.4
80°	95.5	120.5	167.5	183.7	188.1
82.5°	64.7	88.2	120.5	124.9	126.4
85°	39.7	54.4	70.5	70.5	70.5
87.5°	19.1	22.0	25.0	23.5	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)