

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: P308340

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-3000K**

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: P308340
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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: 1225.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

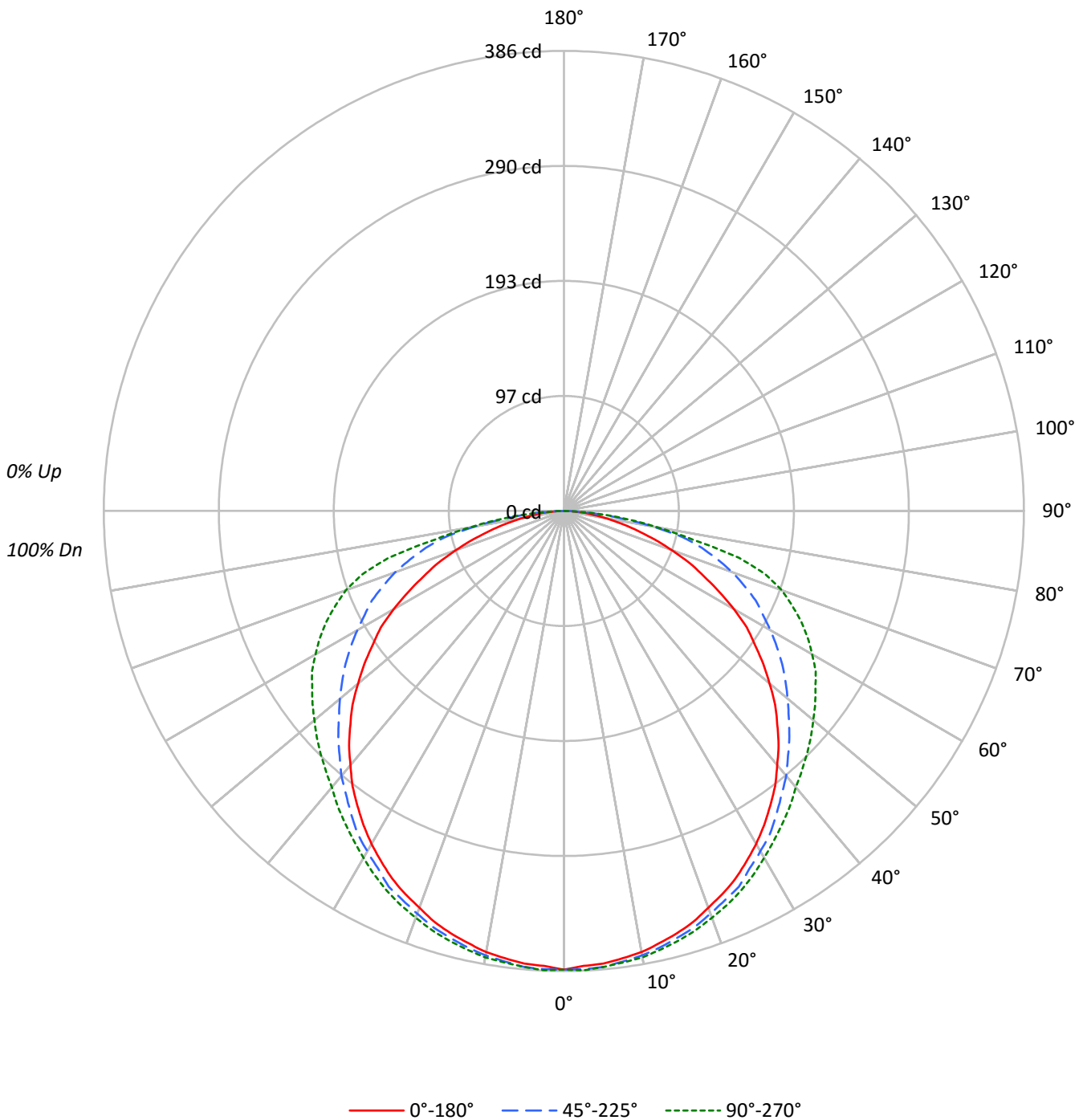
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308340

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P308340

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-3000K

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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1035	1035	1035
5°	1030	1037	1037
10°	1027	1034	1039
15°	1022	1032	1039
20°	1014	1030	1040
25°	1011	1033	1044
30°	1002	1025	1044
35°	992	1021	1051
40°	978	1019	1064
45°	964	1018	1098
50°	943	1026	1143
55°	918	1049	1209
60°	887	1077	1295
65°	826	1130	1400
70°	758	1184	1531
75°	665	1247	1583
80°	572	1187	1243
85°	500	861	945



TEST NUMBER: P308340

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	3.0
10°-20°	104.5	8.5
20°-30°	159.4	13.0
30°-40°	194.7	15.9
40°-50°	208.2	17.0
50°-60°	200.9	16.4
60°-70°	173.0	14.1
70°-80°	117.0	9.6
80°-90°	30.9	2.5
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°	300.4	24.5
0°-40°	495.0	40.4
0°-60°	904.1	73.8
0°-90°	1225.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1225.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	385	385	385	385	385	
5°	381	382	384	384	384	36
15°	367	368	370	372	373	103
25°	341	342	348	350	352	157
35°	302	305	311	317	320	189
45°	253	258	268	281	288	195
55°	196	202	224	246	258	175
65°	130	142	178	206	220	129
75°	64	85	120	144	152	69
85°	16	22	28	29	31	18
90°	0	0	0	0	0	



TEST NUMBER: P308340

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	384.8	384.8	384.8	384.8	384.8
2.5°	382.1	383.0	384.8	384.8	385.7
5°	381.2	382.1	383.9	383.9	383.9
7.5°	378.5	379.4	381.2	382.1	382.1
10°	375.8	376.7	378.5	379.4	380.3
12.5°	371.3	372.2	374.9	376.7	376.7
15°	366.8	367.7	370.4	372.2	373.1
17.5°	361.4	363.2	365.9	367.7	368.6
20°	354.2	356.0	359.6	362.3	363.2
22.5°	347.8	349.6	353.3	356.0	357.8
25°	340.6	342.4	347.8	349.6	351.5
27.5°	331.6	333.4	337.9	341.5	344.2
30°	322.6	324.4	329.8	334.3	336.1
32.5°	312.7	315.4	321.7	325.3	328.0
35°	301.9	304.6	310.9	317.2	319.9
37.5°	291.1	293.8	300.1	308.2	311.8
40°	278.5	282.1	290.2	301.0	302.8
42.5°	266.7	271.2	278.5	291.1	295.6
45°	253.2	257.7	267.6	281.2	288.4
47.5°	240.6	245.1	255.9	272.1	281.2
50°	225.3	231.6	245.1	264.0	273.1
52.5°	210.9	216.3	234.3	255.0	265.8
55°	195.6	201.9	223.5	246.0	257.7
57.5°	182.0	187.4	211.8	237.0	250.5
60°	164.9	172.1	200.1	227.1	240.6
62.5°	146.9	157.7	188.3	216.3	230.7
65°	129.8	142.4	177.5	205.5	219.9
67.5°	114.4	128.0	164.0	193.7	207.3
70°	96.4	113.5	150.5	179.3	194.6
72.5°	80.2	99.1	135.2	164.0	177.5
75°	64.0	84.7	119.9	144.2	152.3
77.5°	49.6	69.4	102.7	109.9	110.8
80°	36.9	55.0	76.6	77.5	80.2
82.5°	25.2	38.7	49.6	54.1	55.0
85°	16.2	22.5	27.9	28.8	30.6
87.5°	7.2	8.1	9.9	9.0	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)