

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: P308911

Luminaire Tested: **22FCZ2-20HE-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: P308911
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: 22FCZ2-20HE-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: 1961.0 lumens
Efficiency: N/A
Efficacy: 114.7 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

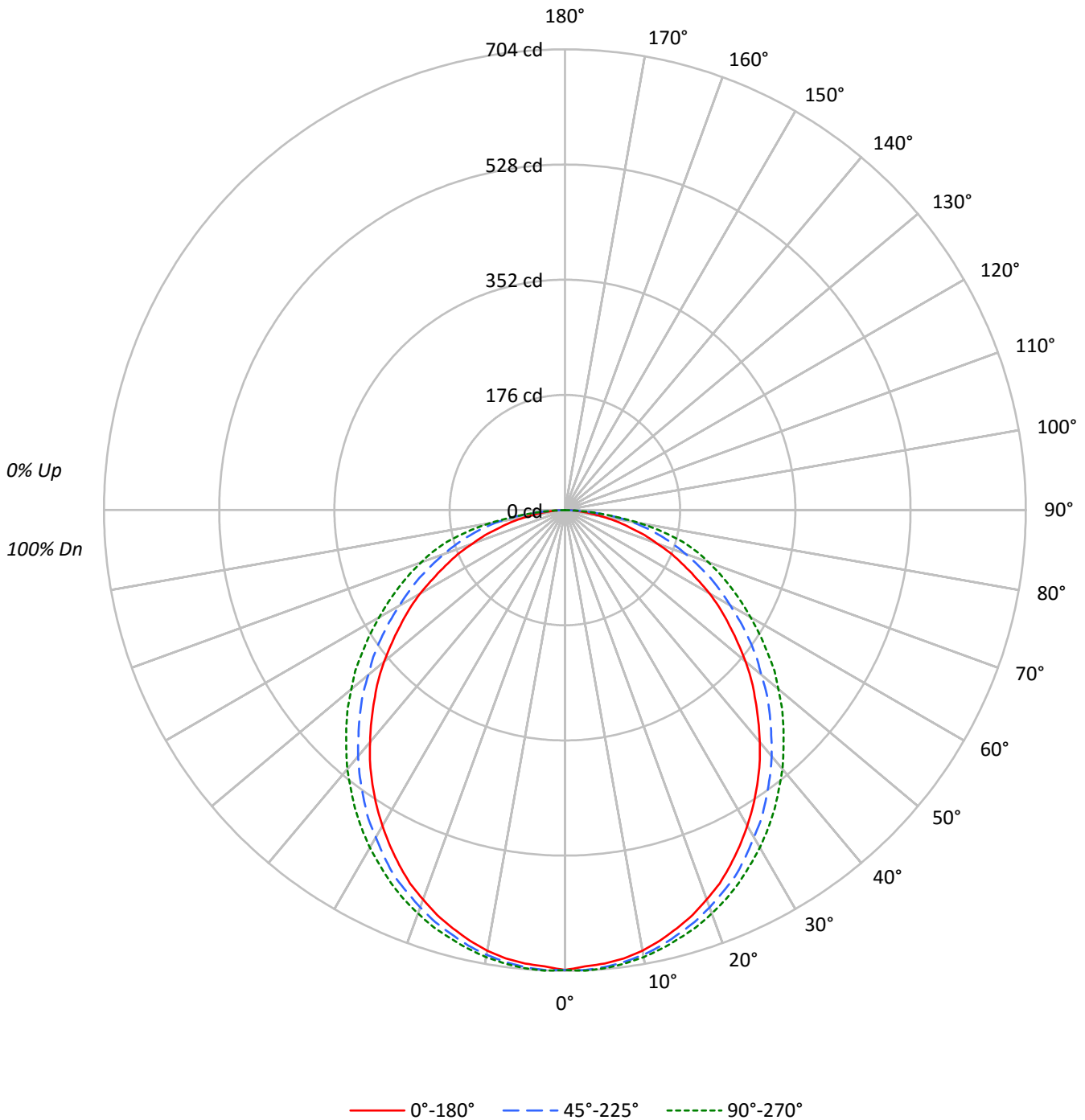
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308911

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-S-CP250-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P308911

CATALOG NUMBER: 22FCZ2-20HE-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°	1891	1891	1891
5°	1878	1893	1898
10°	1868	1885	1895
15°	1843	1869	1886
20°	1813	1850	1879
25°	1777	1831	1866
30°	1731	1794	1851
35°	1683	1761	1833
40°	1626	1726	1816
45°	1567	1685	1797
50°	1509	1639	1781
55°	1438	1610	1769
60°	1374	1571	1763
65°	1282	1561	1783
70°	1181	1548	1836
75°	1066	1570	1931
80°	922	1616	1815
85°	763	1355	1355



TEST NUMBER: P308911

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-S-CP250-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	3.4
10°-20°	189.1	9.6
20°-30°	283.0	14.4
30°-40°	335.1	17.1
40°-50°	341.5	17.4
50°-60°	306.1	15.6
60°-70°	239.6	12.2
70°-80°	154.5	7.9
80°-90°	45.6	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°	538.5	27.5
0°-40°	873.6	44.5
0°-60°	1521.2	77.6
0°-90°	1961.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1961.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	695	697	701	702	703	66
15°	662	665	671	676	677	187
25°	598	604	617	625	629	275
35°	512	519	536	553	558	320
45°	412	421	443	466	472	318
55°	306	317	343	367	377	275
65°	201	213	245	269	280	200
75°	102	118	151	177	186	110
85°	25	34	44	44	44	29
90°	0	0	0	0	0	



TEST NUMBER: P308911

CATALOG NUMBER: 22FC22-20HE-UNV-L82765-S-CP250-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	702.7	702.7	702.7	702.7	702.7
2.5°	698.1	699.9	703.6	704.5	704.5
5°	695.4	697.2	700.9	701.8	702.7
7.5°	690.8	691.7	696.3	698.1	699.0
10°	683.5	685.3	689.9	692.6	693.5
12.5°	673.4	676.2	681.6	685.3	686.2
15°	661.5	665.2	670.7	676.2	677.1
17.5°	648.7	652.4	659.7	666.1	667.9
20°	633.2	637.7	646.0	653.3	656.0
22.5°	617.6	621.3	631.3	640.5	643.2
25°	598.4	603.9	616.7	624.9	628.6
27.5°	578.3	584.7	597.5	608.4	612.1
30°	557.2	563.6	577.3	591.1	595.6
32.5°	535.3	542.6	559.0	572.8	577.3
35°	512.4	518.8	536.2	552.6	558.1
37.5°	488.6	494.1	514.2	531.6	537.1
40°	463.0	470.3	491.3	511.5	517.0
42.5°	437.3	445.6	466.6	488.6	494.1
45°	411.7	420.9	442.8	465.7	472.1
47.5°	387.0	394.3	419.1	441.0	450.2
50°	360.5	367.8	391.6	416.3	425.5
52.5°	333.0	343.1	368.7	392.5	403.5
55°	306.5	316.6	343.1	366.9	377.0
57.5°	281.8	290.0	317.5	342.2	352.3
60°	255.3	262.6	291.9	318.4	327.6
62.5°	226.9	237.9	268.1	292.8	303.8
65°	201.3	213.2	245.2	269.0	280.0
67.5°	177.5	188.5	219.6	245.2	257.1
70°	150.1	164.7	196.7	222.3	233.3
72.5°	128.1	140.9	173.8	199.5	211.4
75°	102.5	118.0	151.0	176.6	185.7
77.5°	81.4	97.0	128.1	148.2	152.8
80°	59.5	75.0	104.3	114.4	117.1
82.5°	40.3	54.9	75.0	77.8	78.7
85°	24.7	33.9	43.9	43.9	43.9
87.5°	11.9	13.7	15.6	14.6	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)