

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: P308636

Luminaire Tested: **22FCZ2-20HE-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: P308636
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: 22FCZ2-20HE-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: 1657.0 lumens
Efficiency: N/A
Efficacy: 99.2 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

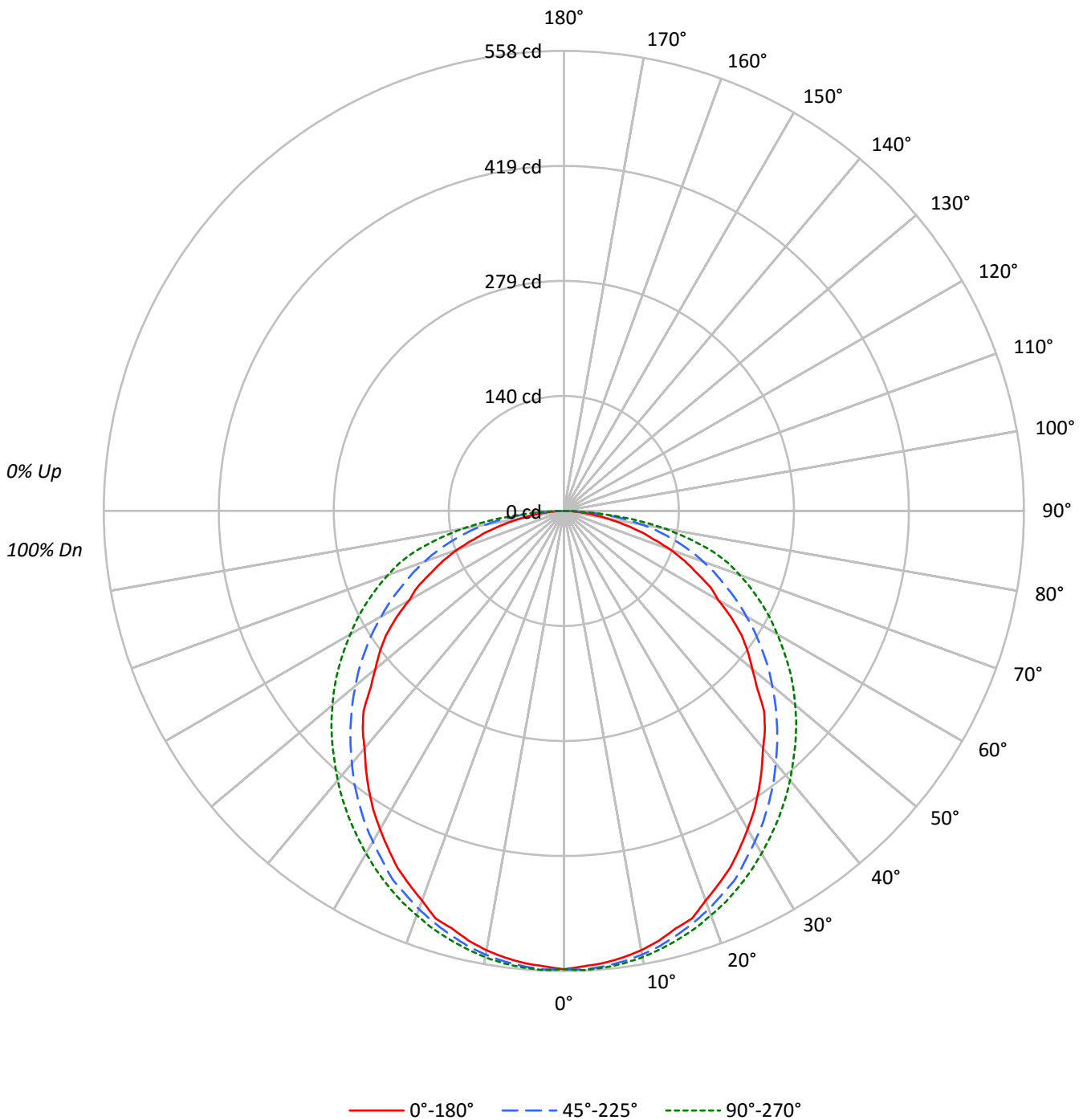
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308636

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-CP250-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P308636

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-CP250-W2A-U-2700K

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°	1496	1496	1496
5°	1487	1498	1502
10°	1478	1493	1502
15°	1460	1482	1498
20°	1440	1472	1494
25°	1417	1462	1493
30°	1385	1439	1491
35°	1355	1422	1493
40°	1320	1404	1499
45°	1307	1391	1512
50°	1248	1381	1534
55°	1235	1377	1567
60°	1165	1375	1609
65°	1131	1384	1682
70°	1086	1416	1784
75°	990	1460	1921
80°	848	1511	1942
85°	685	1445	1664



TEST NUMBER: P308636

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-CP250-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	3.2
10°-20°	150.1	9.1
20°-30°	225.9	13.6
30°-40°	271.1	16.4
40°-50°	283.3	17.1
50°-60°	264.0	15.9
60°-70°	216.6	13.1
70°-80°	145.9	8.8
80°-90°	47.5	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°	428.5	25.9
0°-40°	699.6	42.2
0°-60°	1247.0	75.3
0°-90°	1657.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1657.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	550	552	554	555	556	52
15°	524	527	532	537	538	148
25°	477	481	492	500	503	219
35°	412	418	433	448	454	258
45°	343	346	366	388	397	262
55°	263	268	293	321	334	233
65°	178	186	217	249	264	177
75°	95	106	140	172	185	100
85°	22	32	47	55	54	26
90°	0	0	0	0	0	



TEST NUMBER: P308636

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-CP250-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	555.9	555.9	555.9	555.9	555.9
2.5°	552.8	554.4	556.7	557.5	557.5
5°	550.4	552.0	554.4	555.1	555.9
7.5°	546.4	548.0	551.2	552.8	553.6
10°	540.9	542.5	546.4	548.8	549.6
12.5°	533.7	535.3	540.1	543.2	544.0
15°	524.2	527.4	532.1	536.9	537.7
17.5°	517.9	517.1	523.4	529.0	530.6
20°	502.8	506.8	513.9	520.2	521.8
22.5°	490.1	493.3	502.8	509.9	513.1
25°	477.4	480.6	492.5	499.6	502.8
27.5°	461.6	466.3	477.4	487.7	491.7
30°	445.7	450.5	463.1	475.0	479.8
32.5°	429.8	435.4	448.9	461.6	467.1
35°	412.4	417.9	433.0	448.1	454.4
37.5°	394.2	401.3	417.2	433.8	440.9
40°	375.9	383.0	399.7	418.7	426.7
42.5°	360.8	364.0	383.0	403.7	411.6
45°	343.4	345.8	365.6	387.8	397.3
47.5°	318.0	326.7	348.2	372.7	382.3
50°	298.2	307.7	329.9	356.1	366.4
52.5°	281.5	287.9	312.5	338.6	350.5
55°	263.3	268.1	293.4	321.2	333.9
57.5°	241.1	249.8	275.2	303.7	316.4
60°	216.5	227.6	255.4	286.3	299.0
62.5°	200.6	207.0	237.1	268.1	282.3
65°	177.6	185.6	217.3	249.0	264.1
67.5°	158.6	166.5	199.1	230.8	245.8
70°	138.0	145.9	180.0	211.7	226.8
72.5°	114.2	125.3	161.0	192.7	208.6
75°	95.2	105.5	140.4	172.1	184.8
77.5°	73.8	87.2	119.8	145.9	155.4
80°	54.7	68.2	97.5	116.6	125.3
82.5°	37.3	50.8	73.0	87.2	92.0
85°	22.2	31.7	46.8	54.7	53.9
87.5°	10.3	13.5	19.0	19.0	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)