

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: P312753

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-CP125-W2A-U-4500K**

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: P312753
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-L83050-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 2015.0 lumens
Efficiency: N/A
Efficacy: 115.1 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

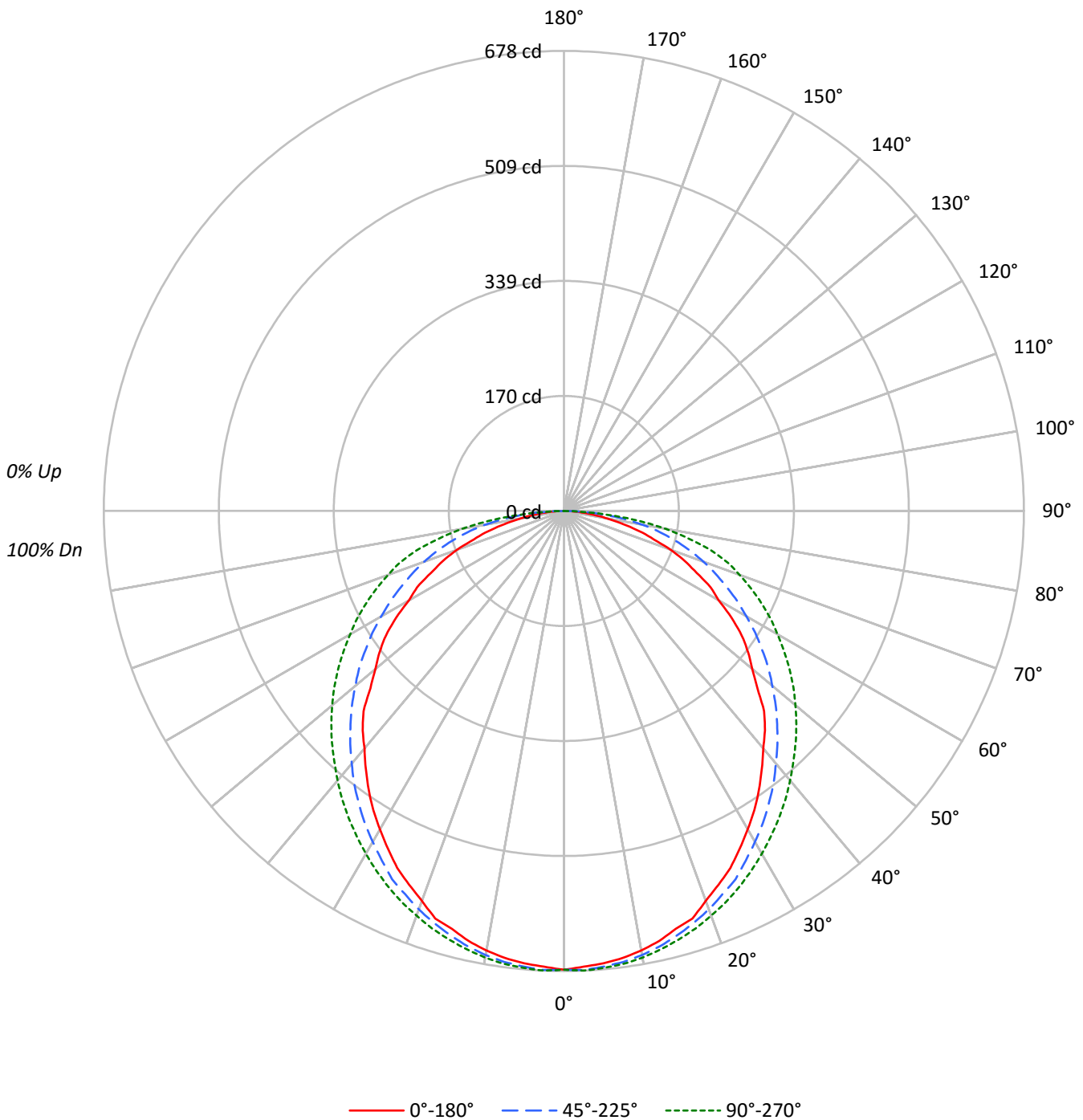
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312753

CATALOG NUMBER: 22FCZ2-20HE-UNV-L83050-CP125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P312753

CATALOG NUMBER: 22FCZ2-20HE-UNV-L83050-CP125-W2A-U-4500K

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°	1819	1819	1819
5°	1808	1821	1826
10°	1797	1816	1826
15°	1776	1803	1822
20°	1751	1790	1817
25°	1724	1778	1815
30°	1684	1750	1813
35°	1647	1730	1815
40°	1606	1708	1823
45°	1589	1692	1839
50°	1518	1680	1865
55°	1502	1674	1905
60°	1417	1671	1957
65°	1375	1682	2045
70°	1320	1722	2170
75°	1203	1775	2336
80°	1031	1838	2362
85°	834	1757	2025



TEST NUMBER: P312753

CATALOG NUMBER: 22FCZ2-20HE-UNV-L83050-CP125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	3.2
10°-20°	182.5	9.1
20°-30°	274.7	13.6
30°-40°	329.6	16.4
40°-50°	344.5	17.1
50°-60°	321.1	15.9
60°-70°	263.3	13.1
70°-80°	177.5	8.8
80°-90°	57.8	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°	521.1	25.9
0°-40°	850.8	42.2
0°-60°	1516.4	75.3
0°-90°	2015.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2015.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	669	671	674	675	676	64
15°	638	641	647	653	654	180
25°	581	584	599	608	611	267
35°	502	508	527	545	553	314
45°	418	420	445	472	483	319
55°	320	326	357	391	406	284
65°	216	226	264	303	321	215
75°	116	128	171	209	225	122
85°	27	39	57	66	66	32
90°	0	0	0	0	0	



TEST NUMBER: P312753

CATALOG NUMBER: 22FCZ2-20HE-UNV-L83050-CP125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.0	676.0	676.0	676.0	676.0
2.5°	672.2	674.1	677.0	678.0	678.0
5°	669.3	671.2	674.1	675.1	676.0
7.5°	664.5	666.4	670.3	672.2	673.2
10°	657.7	659.7	664.5	667.4	668.3
12.5°	649.0	651.0	656.8	660.6	661.6
15°	637.5	641.3	647.1	652.9	653.9
17.5°	629.8	628.8	636.5	643.3	645.2
20°	611.4	616.3	624.9	632.7	634.6
22.5°	596.0	599.9	611.4	620.1	624.0
25°	580.6	584.4	598.9	607.6	611.4
27.5°	561.3	567.1	580.6	593.1	597.9
30°	542.0	547.8	563.2	577.7	583.5
32.5°	522.7	529.5	545.9	561.3	568.0
35°	501.5	508.2	526.6	544.9	552.6
37.5°	479.3	488.0	507.3	527.5	536.2
40°	457.1	465.8	486.1	509.2	518.9
42.5°	438.8	442.7	465.8	490.9	500.5
45°	417.6	420.5	444.6	471.6	483.2
47.5°	386.7	397.3	423.4	453.3	464.8
50°	362.6	374.2	401.2	433.0	445.6
52.5°	342.4	350.1	380.0	411.8	426.3
55°	320.2	326.0	356.8	390.6	406.0
57.5°	293.2	303.8	334.6	369.4	384.8
60°	263.3	276.8	310.5	348.2	363.6
62.5°	244.0	251.7	288.4	326.0	343.3
65°	216.0	225.7	264.2	302.8	321.1
67.5°	192.9	202.5	242.1	280.6	299.0
70°	167.8	177.5	218.9	257.5	275.8
72.5°	138.9	152.4	195.8	234.4	253.6
75°	115.7	128.3	170.7	209.3	224.7
77.5°	89.7	106.1	145.6	177.5	189.0
80°	66.5	82.9	118.6	141.8	152.4
82.5°	45.3	61.7	88.7	106.1	111.9
85°	27.0	38.6	56.9	66.5	65.6
87.5°	12.5	16.4	23.1	23.1	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)