

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: P313021

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-3500K**

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: P313021
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: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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: 4182.0 lumens
Efficiency: N/A
Efficacy: 112.4 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

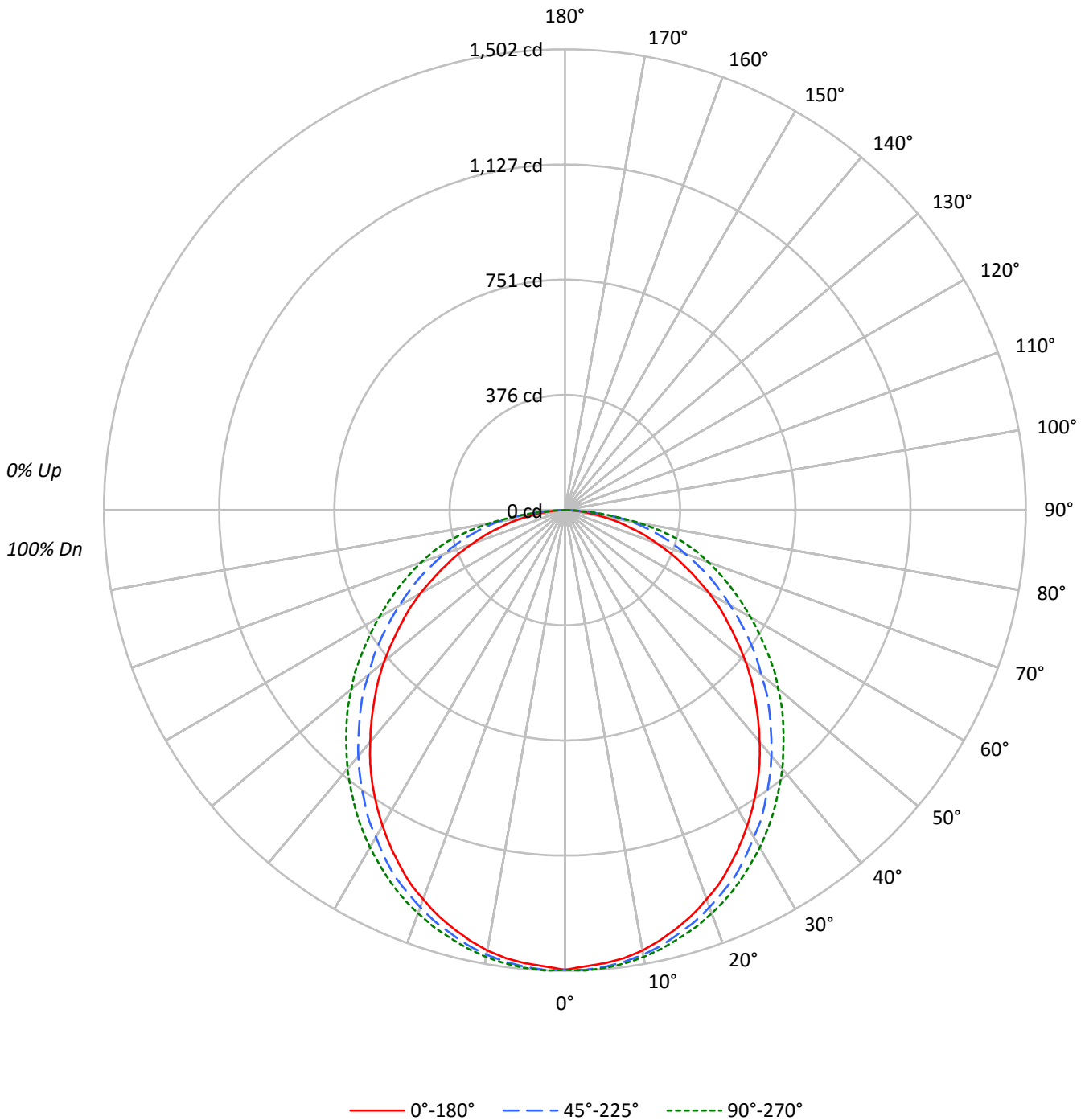
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313021

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P313021

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-3500K

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°	4032	4032	4032
5°	4006	4037	4048
10°	3983	4020	4041
15°	3930	3984	4023
20°	3867	3945	4006
25°	3789	3905	3980
30°	3692	3826	3947
35°	3590	3756	3910
40°	3468	3681	3873
45°	3342	3594	3831
50°	3219	3496	3798
55°	3067	3433	3772
60°	2930	3350	3759
65°	2734	3330	3802
70°	2518	3301	3915
75°	2272	3348	4118
80°	1965	3446	3871
85°	1627	2893	2893



TEST NUMBER: P313021

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.7	3.4
10°-20°	403.3	9.6
20°-30°	603.4	14.4
30°-40°	714.6	17.1
40°-50°	728.3	17.4
50°-60°	652.7	15.6
60°-70°	511.0	12.2
70°-80°	329.5	7.9
80°-90°	97.4	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°	1148.4	27.5
0°-40°	1863.1	44.5
0°-60°	3244.1	77.6
0°-90°	4182.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4182.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1498	1498	1498	1498	1498	
5°	1483	1487	1495	1497	1498	141
15°	1411	1418	1430	1442	1444	398
25°	1276	1288	1315	1333	1340	587
35°	1093	1106	1143	1178	1190	683
45°	878	898	944	993	1007	678
55°	654	675	732	782	804	586
65°	429	455	523	574	597	426
75°	218	252	322	377	396	234
85°	53	72	94	94	94	62
90°	0	0	0	0	0	



TEST NUMBER: P313021

CATALOG NUMBER: 22FC22-44HE-UNV-L83050-S-CA125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1498.5	1498.5	1498.5	1498.5	1498.5
2.5°	1488.8	1492.7	1500.5	1502.4	1502.4
5°	1482.9	1486.8	1494.6	1496.6	1498.5
7.5°	1473.2	1475.1	1484.9	1488.8	1490.7
10°	1457.6	1461.5	1471.2	1477.1	1479.0
12.5°	1436.1	1442.0	1453.7	1461.5	1463.4
15°	1410.7	1418.5	1430.2	1442.0	1443.9
17.5°	1383.4	1391.2	1406.8	1420.5	1424.4
20°	1350.2	1360.0	1377.6	1393.2	1399.0
22.5°	1317.1	1324.9	1346.3	1365.9	1371.7
25°	1276.1	1287.8	1315.1	1332.7	1340.5
27.5°	1233.2	1246.8	1274.2	1297.6	1305.4
30°	1188.3	1202.0	1231.2	1260.5	1270.2
32.5°	1141.5	1157.1	1192.2	1221.5	1231.2
35°	1092.7	1106.3	1143.4	1178.5	1190.2
37.5°	1042.0	1053.7	1096.6	1133.7	1145.4
40°	987.3	1002.9	1047.8	1090.7	1102.4
42.5°	932.7	950.2	995.1	1042.0	1053.7
45°	878.1	897.6	944.4	993.2	1006.8
47.5°	825.4	841.0	893.7	940.5	960.0
50°	768.8	784.4	835.1	887.8	907.3
52.5°	710.2	731.7	786.3	837.1	860.5
55°	653.7	675.1	731.7	782.4	803.9
57.5°	601.0	618.5	677.1	729.8	751.2
60°	544.4	560.0	622.4	679.0	698.5
62.5°	483.9	507.3	571.7	624.4	647.8
65°	429.3	454.6	522.9	573.7	597.1
67.5°	378.5	402.0	468.3	522.9	548.3
70°	320.0	351.2	419.5	474.1	497.6
72.5°	273.2	300.5	370.7	425.4	450.7
75°	218.5	251.7	322.0	376.6	396.1
77.5°	173.7	206.8	273.2	316.1	325.9
80°	126.8	160.0	222.4	243.9	249.8
82.5°	85.9	117.1	160.0	165.9	167.8
85°	52.7	72.2	93.7	93.7	93.7
87.5°	25.4	29.3	33.2	31.2	31.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)