

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: P313020

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-S-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: P313020
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-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 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: 3952.0 lumens
Efficiency: N/A
Efficacy: 106.5 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

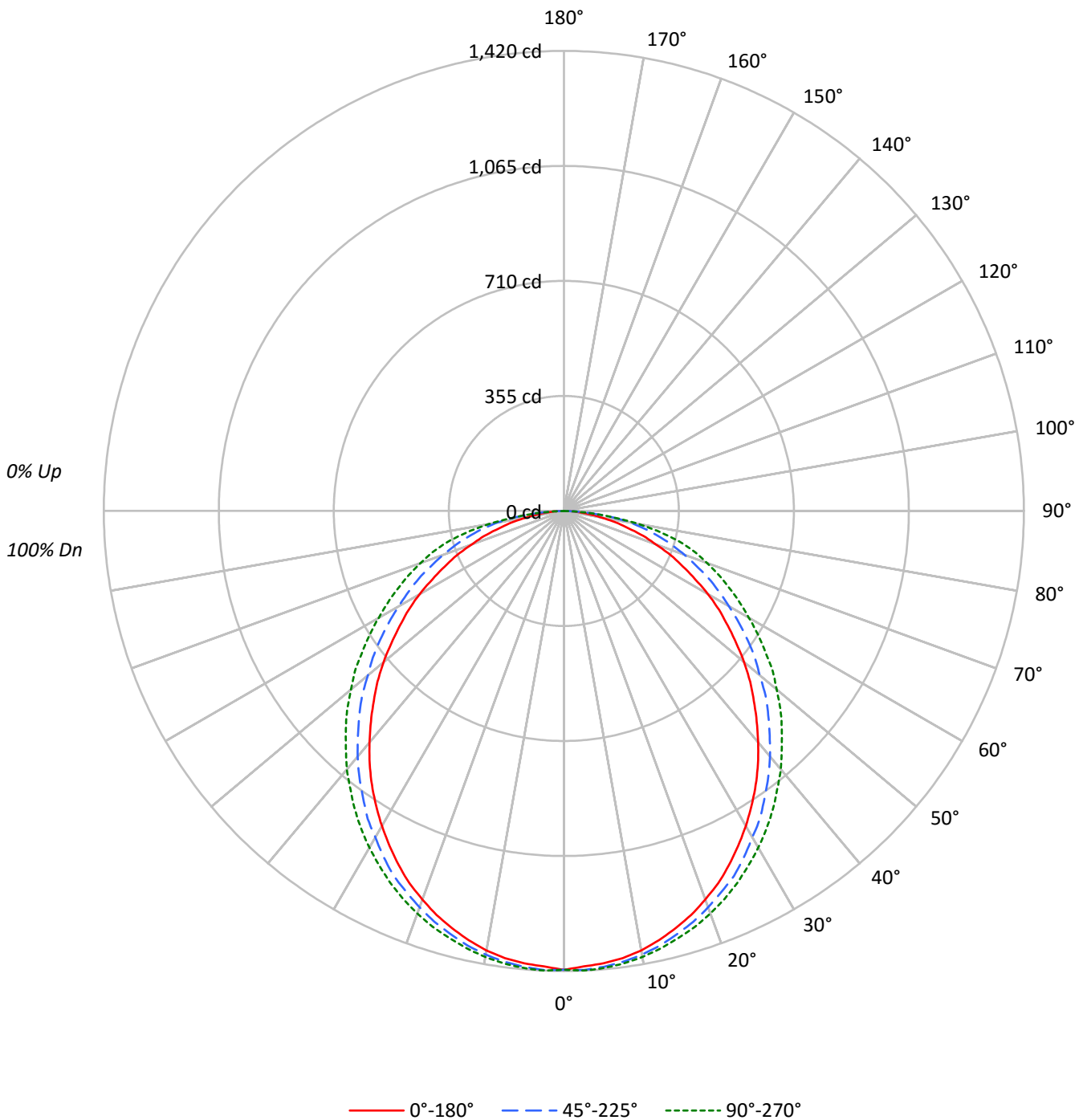
Input Watts (W): 37.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313020

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P313020

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-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	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100				
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83				83				
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69				69				
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58				58				
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49				49				
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43				43				
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37				37				
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33				33				
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30				30				
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27				27				
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24				24				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3811	3811	3811
5°	3786	3815	3825
10°	3764	3799	3819
15°	3714	3765	3801
20°	3654	3728	3786
25°	3581	3690	3761
30°	3489	3615	3730
35°	3392	3550	3695
40°	3277	3478	3660
45°	3158	3397	3621
50°	3041	3304	3589
55°	2898	3244	3564
60°	2769	3166	3553
65°	2583	3147	3592
70°	2379	3119	3699
75°	2147	3163	3892
80°	1858	3257	3657
85°	1538	2732	2732



TEST NUMBER: P313020

CATALOG NUMBER: 22FCZ2-44HE-UNV-L83050-S-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.9	3.4
10°-20°	381.1	9.6
20°-30°	570.2	14.4
30°-40°	675.3	17.1
40°-50°	688.2	17.4
50°-60°	616.8	15.6
60°-70°	482.9	12.2
70°-80°	311.4	7.9
80°-90°	92.0	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°	1085.3	27.5
0°-40°	1760.6	44.5
0°-60°	3065.7	77.6
0°-90°	3952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1401	1405	1412	1414	1416	133
15°	1333	1340	1352	1363	1364	376
25°	1206	1217	1243	1259	1267	555
35°	1033	1046	1080	1114	1125	645
45°	830	848	892	939	952	641
55°	618	638	692	739	760	554
65°	406	430	494	542	564	403
75°	206	238	304	356	374	221
85°	50	68	88	88	88	58
90°	0	0	0	0	0	



TEST NUMBER: P313020

CATALOG NUMBER: 22FC22-44HE-UNV-L83050-S-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1416.1	1416.1	1416.1	1416.1	1416.1
2.5°	1406.9	1410.6	1418.0	1419.8	1419.8
5°	1401.4	1405.1	1412.4	1414.3	1416.1
7.5°	1392.2	1394.0	1403.2	1406.9	1408.7
10°	1377.4	1381.1	1390.3	1395.8	1397.7
12.5°	1357.1	1362.7	1373.7	1381.1	1382.9
15°	1333.1	1340.5	1351.6	1362.7	1364.5
17.5°	1307.3	1314.7	1329.5	1342.4	1346.1
20°	1276.0	1285.2	1301.8	1316.6	1322.1
22.5°	1244.6	1252.0	1272.3	1290.7	1296.3
25°	1205.9	1217.0	1242.8	1259.4	1266.8
27.5°	1165.4	1178.3	1204.1	1226.2	1233.6
30°	1122.9	1135.9	1163.5	1191.2	1200.4
32.5°	1078.7	1093.4	1126.6	1154.3	1163.5
35°	1032.6	1045.5	1080.5	1113.7	1124.8
37.5°	984.6	995.7	1036.3	1071.3	1082.4
40°	933.0	947.8	990.2	1030.7	1041.8
42.5°	881.4	898.0	940.4	984.6	995.7
45°	829.8	848.2	892.5	938.6	951.5
47.5°	780.0	794.7	844.5	888.8	907.2
50°	726.5	741.3	789.2	839.0	857.4
52.5°	671.2	691.5	743.1	791.0	813.2
55°	617.7	638.0	691.5	739.4	759.7
57.5°	567.9	584.5	639.8	689.6	709.9
60°	514.5	529.2	588.2	641.7	660.1
62.5°	457.3	479.4	540.3	590.1	612.2
65°	405.7	429.6	494.2	542.1	564.2
67.5°	357.7	379.8	442.5	494.2	518.1
70°	302.4	331.9	396.4	448.1	470.2
72.5°	258.1	284.0	350.3	402.0	425.9
75°	206.5	237.9	304.2	355.9	374.3
77.5°	164.1	195.5	258.1	298.7	307.9
80°	119.9	151.2	210.2	230.5	236.0
82.5°	81.1	110.6	151.2	156.7	158.6
85°	49.8	68.2	88.5	88.5	88.5
87.5°	24.0	27.7	31.3	29.5	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)