

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: P313245

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-HRP-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: P313245
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-50HE-UNV-L83050-HRP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 3361.0 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

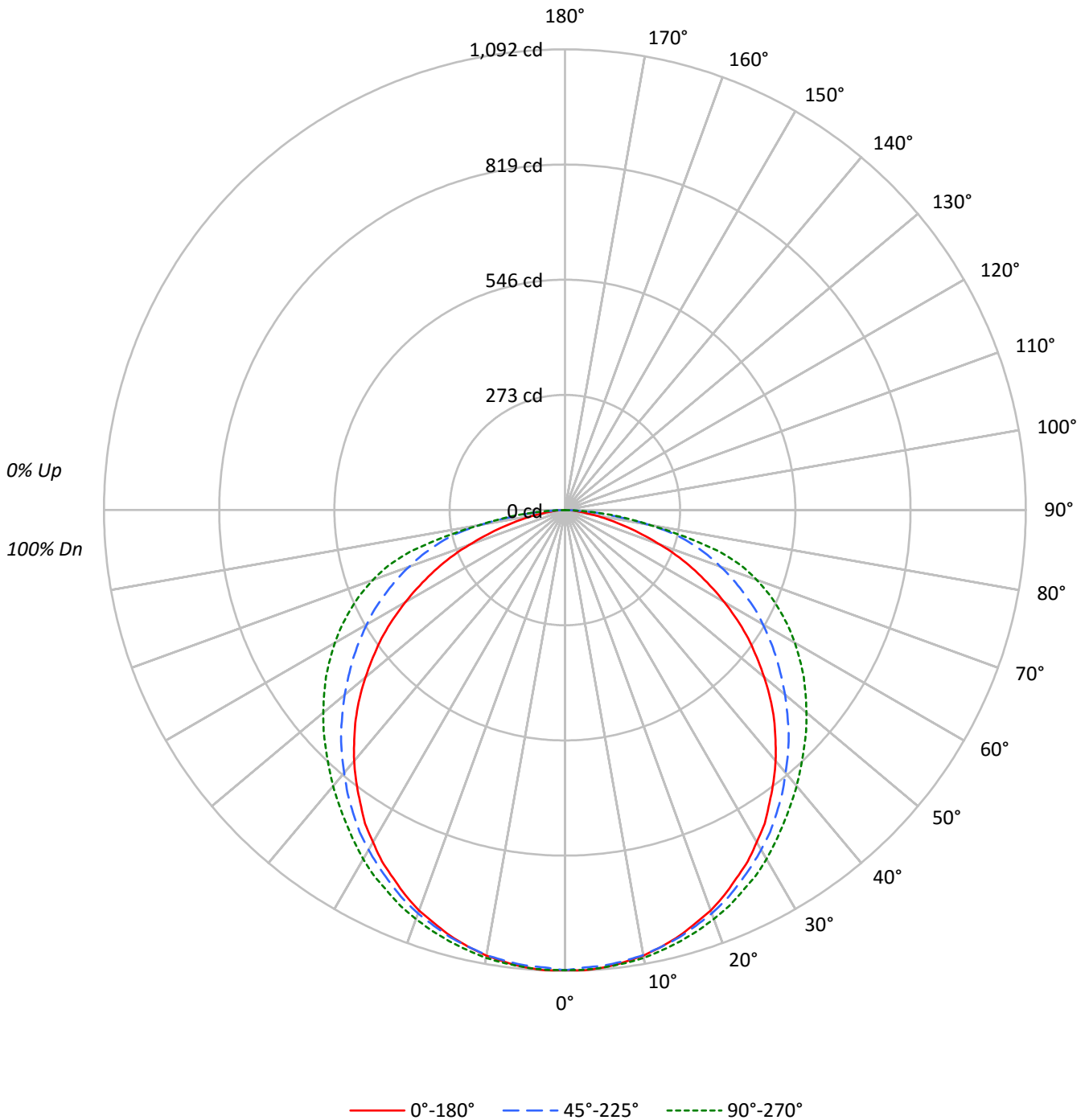
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313245

CATALOG NUMBER: 24FCZ2-50HE-UNV-L83050-HRP-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P313245

CATALOG NUMBER: 24FCZ2-50HE-UNV-L83050-HRP-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	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	101	96	93	96	93	90	92	90	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	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1467	1467	1467
5°	1469	1463	1469
10°	1465	1463	1473
15°	1456	1460	1474
20°	1447	1457	1477
25°	1429	1450	1479
30°	1412	1445	1484
35°	1389	1438	1486
40°	1364	1428	1500
45°	1333	1427	1523
50°	1290	1425	1564
55°	1244	1436	1621
60°	1174	1458	1693
65°	1084	1492	1787
70°	947	1544	1904
75°	768	1624	1968
80°	567	1592	1592
85°	434	1173	1325



TEST NUMBER: P313245

CATALOG NUMBER: 24FCZ2-50HE-UNV-L83050-HRP-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.3	3.1
10°-20°	296.6	8.8
20°-30°	451.6	13.4
30°-40°	548.4	16.3
40°-50°	579.3	17.2
50°-60°	546.7	16.3
60°-70°	454.5	13.5
70°-80°	299.0	8.9
80°-90°	81.5	2.4
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°	851.6	25.3
0°-40°	1399.9	41.7
0°-60°	2525.9	75.2
0°-90°	3361.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3361.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1090	1090	1090	1090	1090	
5°	1088	1088	1083	1088	1088	103
15°	1046	1047	1048	1058	1058	295
25°	962	968	976	993	996	444
35°	846	856	875	898	905	529
45°	701	715	750	787	801	540
55°	530	553	612	670	691	472
65°	340	380	469	538	561	337
75°	148	215	312	370	378	159
85°	28	62	76	84	86	34
90°	0	0	0	0	0	



TEST NUMBER: P313245

CATALOG NUMBER: 24FCZ2-50HE-UNV-L83050-HRP-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1090.5	1090.5	1090.5	1090.5	1090.5
2.5°	1091.9	1090.5	1084.9	1090.5	1090.5
5°	1087.7	1087.7	1083.4	1087.7	1087.7
7.5°	1080.6	1080.6	1077.8	1083.4	1083.4
10°	1072.2	1072.2	1070.8	1077.8	1077.8
12.5°	1059.5	1060.9	1059.5	1068.0	1068.0
15°	1045.5	1046.9	1048.3	1058.1	1058.1
17.5°	1027.2	1030.0	1032.8	1044.0	1045.5
20°	1010.3	1011.7	1017.3	1030.0	1031.4
22.5°	987.8	992.0	999.0	1011.7	1015.9
25°	962.4	968.1	976.5	993.4	996.2
27.5°	938.5	942.7	954.0	972.3	977.9
30°	909.0	916.0	930.1	948.4	955.4
32.5°	880.8	887.9	904.7	924.4	930.1
35°	845.6	855.5	875.2	897.7	904.7
37.5°	811.9	821.7	845.6	871.0	879.4
40°	776.7	788.0	813.3	842.8	854.1
42.5°	738.7	754.2	782.3	814.7	827.4
45°	700.7	714.8	750.0	786.6	800.6
47.5°	659.9	676.8	714.8	758.4	775.3
50°	616.3	637.4	681.0	728.9	747.2
52.5°	572.7	596.6	645.8	699.3	719.0
55°	530.5	553.0	612.1	669.8	690.9
57.5°	484.0	512.2	576.9	638.8	659.9
60°	436.2	467.1	541.7	606.4	629.0
62.5°	388.4	423.5	508.0	572.7	596.6
65°	340.5	379.9	468.6	537.5	561.4
67.5°	294.1	337.7	432.0	500.9	524.8
70°	240.6	295.5	392.6	460.1	484.0
72.5°	191.4	254.7	354.6	417.9	439.0
75°	147.7	215.3	312.4	370.1	378.5
77.5°	108.3	175.9	268.8	288.4	289.9
80°	73.2	140.7	205.4	202.6	205.4
82.5°	47.8	105.5	129.5	144.9	146.3
85°	28.1	61.9	76.0	84.4	85.8
87.5°	14.1	21.1	26.7	28.1	31.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)