

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: P313275

Luminaire Tested: **24FCZ2-50-UNV-L83050-HRP-CP125-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: P313275
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: 24FCZ2-50-UNV-L83050-HRP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
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

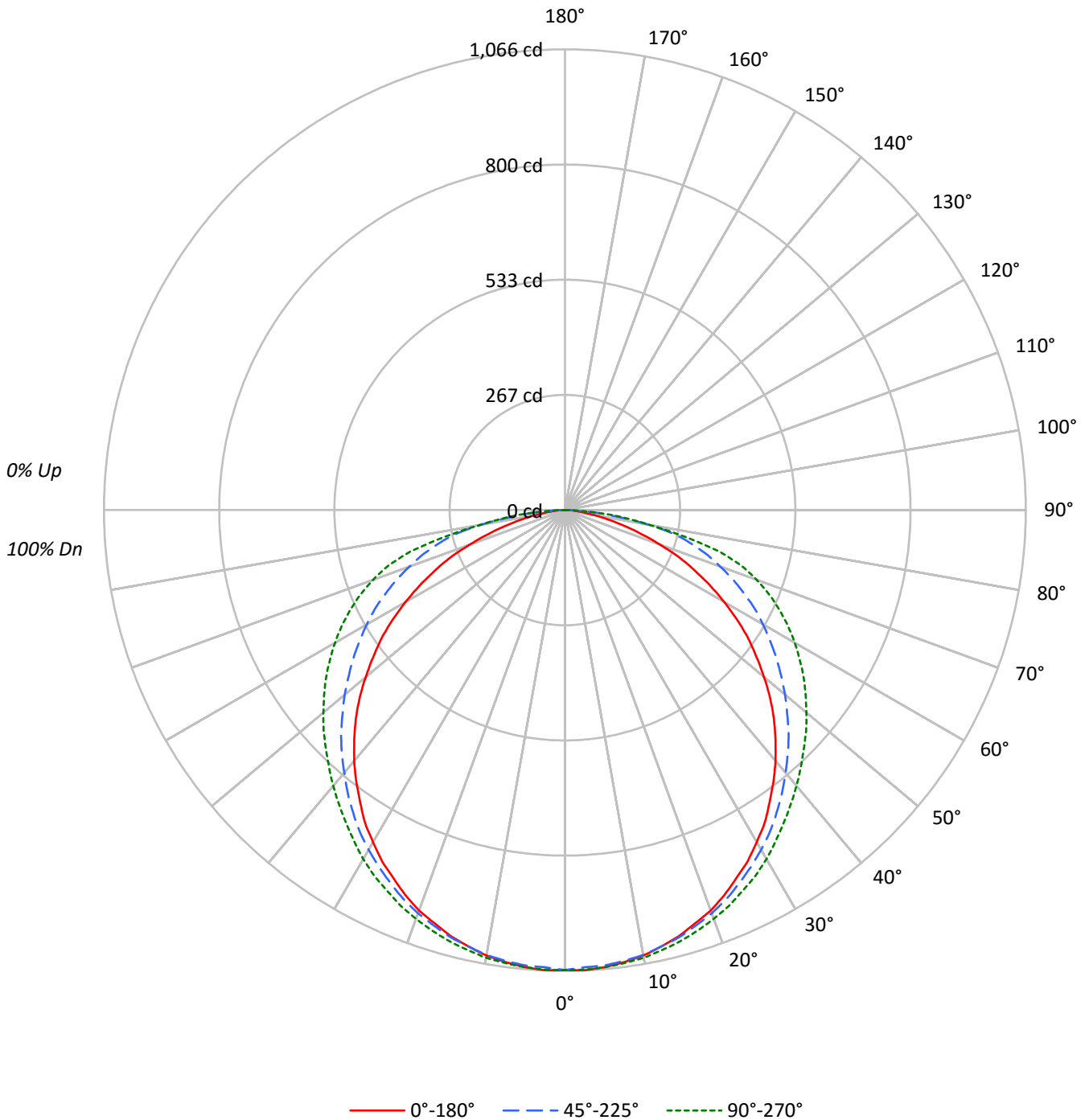
Lumens per Lamp: N/A
Luminaire Lumens: 3280.0 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 42.6
Input Voltage (V): NR
Input Current (Ain): 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



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Luminous Intensity Polar Plot





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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°	1432	1432	1432
5°	1434	1428	1434
10°	1430	1428	1437
15°	1421	1425	1438
20°	1412	1422	1441
25°	1394	1415	1443
30°	1378	1410	1449
35°	1356	1403	1450
40°	1331	1394	1464
45°	1301	1393	1487
50°	1259	1391	1526
55°	1214	1401	1582
60°	1146	1423	1652
65°	1058	1456	1744
70°	924	1507	1858
75°	750	1585	1920
80°	553	1554	1554
85°	425	1145	1294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	3.1
10°-20°	289.5	8.8
20°-30°	440.7	13.4
30°-40°	535.1	16.3
40°-50°	565.4	17.2
50°-60°	533.5	16.3
60°-70°	443.6	13.5
70°-80°	291.8	8.9
80°-90°	79.6	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°	831.0	25.3
0°-40°	1366.2	41.7
0°-60°	2465.0	75.2
0°-90°	3280.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3280.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1062	1062	1057	1062	1062	101
15°	1020	1022	1023	1033	1033	288
25°	939	945	953	970	972	433
35°	825	835	854	876	883	517
45°	684	698	732	768	781	527
55°	518	540	597	654	674	461
65°	332	371	457	524	548	328
75°	144	210	305	361	369	155
85°	28	60	74	82	84	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.2	1064.2	1064.2	1064.2	1064.2
2.5°	1065.6	1064.2	1058.7	1064.2	1064.2
5°	1061.5	1061.5	1057.3	1061.5	1061.5
7.5°	1054.6	1054.6	1051.8	1057.3	1057.3
10°	1046.3	1046.3	1045.0	1051.8	1051.8
12.5°	1034.0	1035.4	1034.0	1042.2	1042.2
15°	1020.3	1021.6	1023.0	1032.6	1032.6
17.5°	1002.4	1005.2	1007.9	1018.9	1020.3
20°	985.9	987.3	992.8	1005.2	1006.5
22.5°	964.0	968.1	974.9	987.3	991.4
25°	939.2	944.7	953.0	969.5	972.2
27.5°	915.9	920.0	931.0	948.9	954.3
30°	887.1	893.9	907.7	925.5	932.4
32.5°	859.6	866.5	882.9	902.2	907.7
35°	825.3	834.9	854.1	876.1	882.9
37.5°	792.3	801.9	825.3	850.0	858.2
40°	758.0	769.0	793.7	822.5	833.5
42.5°	720.9	736.0	763.5	795.1	807.4
45°	683.8	697.6	731.9	767.6	781.3
47.5°	644.0	660.5	697.6	740.1	756.6
50°	601.4	622.0	664.6	711.3	729.1
52.5°	558.9	582.2	630.3	682.5	701.7
55°	517.7	539.7	597.3	653.6	674.2
57.5°	472.4	499.8	563.0	623.4	644.0
60°	425.7	455.9	528.7	591.8	613.8
62.5°	379.0	413.3	495.7	558.9	582.2
65°	332.3	370.8	457.3	524.5	547.9
67.5°	287.0	329.6	421.6	488.8	512.2
70°	234.8	288.4	383.1	449.0	472.4
72.5°	186.7	248.5	346.0	407.8	428.4
75°	144.2	210.1	304.8	361.1	369.4
77.5°	105.7	171.6	262.3	281.5	282.9
80°	71.4	137.3	200.5	197.7	200.5
82.5°	46.7	103.0	126.3	141.4	142.8
85°	27.5	60.4	74.2	82.4	83.8
87.5°	13.7	20.6	26.1	27.5	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)