

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: P313622

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-RDP-CA125-W2A-U-4000K**

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: P313622
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
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-RDP-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 4000K 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: 3233.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

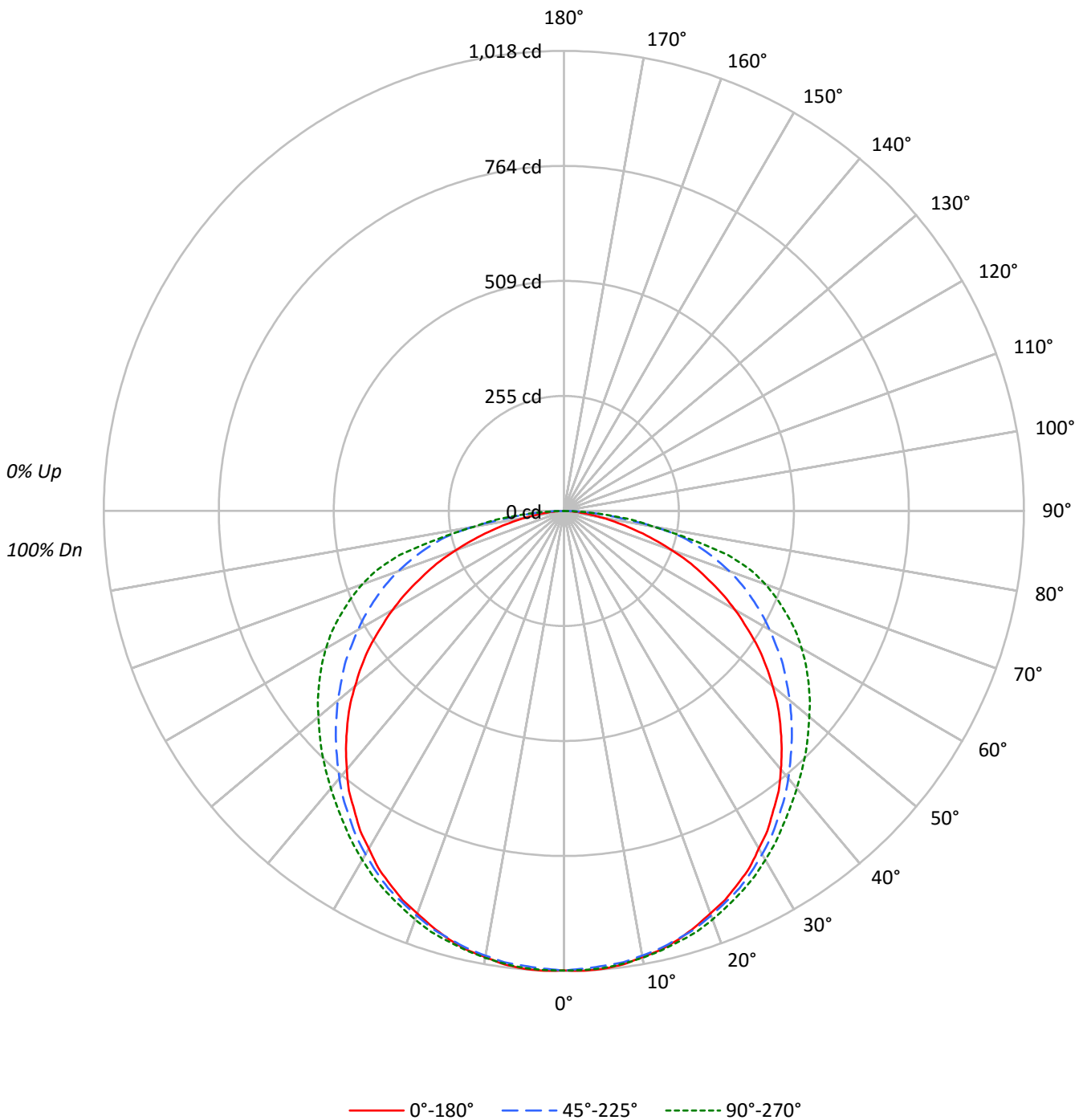
Input Watts (W): 39.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1368	1368	1368
5°	1373	1365	1371
10°	1369	1365	1372
15°	1367	1365	1374
20°	1357	1364	1378
25°	1352	1367	1381
30°	1340	1363	1385
35°	1328	1359	1391
40°	1313	1358	1408
45°	1291	1358	1440
50°	1262	1366	1484
55°	1230	1388	1550
60°	1178	1415	1636
65°	1103	1465	1736
70°	1003	1533	1867
75°	850	1617	1951
80°	671	1628	1578
85°	496	1238	1386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.4	3.0
10°-20°	277.6	8.6
20°-30°	424.4	13.1
30°-40°	518.9	16.0
40°-50°	553.0	17.1
50°-60°	528.8	16.4
60°-70°	447.9	13.9
70°-80°	301.0	9.3
80°-90°	84.9	2.6
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°	798.5	24.7
0°-40°	1317.3	40.7
0°-60°	2399.1	74.2
0°-90°	3233.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3233.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1017	1017	1017	1017	1017	
5°	1017	1015	1010	1015	1015	97
15°	981	981	980	988	986	277
25°	911	914	920	928	930	420
35°	808	815	828	844	847	506
45°	678	690	714	744	757	523
55°	524	544	592	638	661	467
65°	346	382	460	521	545	344
75°	164	223	311	364	375	175
85°	32	66	80	87	90	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1016.7	1016.7	1016.7	1016.7	1016.7
2.5°	1018.3	1018.3	1013.5	1016.7	1016.7
5°	1016.7	1015.1	1010.3	1015.1	1015.1
7.5°	1011.9	1010.3	1007.1	1011.9	1010.3
10°	1002.3	1002.3	999.0	1003.9	1003.9
12.5°	994.2	992.6	991.0	997.4	995.8
15°	981.4	981.4	979.8	987.8	986.2
17.5°	965.4	967.0	968.6	975.0	976.6
20°	947.7	950.9	952.5	962.2	962.2
22.5°	931.7	933.3	936.5	946.1	946.1
25°	910.8	914.1	920.5	928.5	930.1
27.5°	890.0	891.6	899.6	910.8	912.5
30°	862.7	867.6	877.2	890.0	891.6
32.5°	838.7	843.5	854.7	867.6	870.8
35°	808.2	814.6	827.5	843.5	846.7
37.5°	781.0	785.8	801.8	819.4	824.3
40°	747.3	756.9	772.9	793.8	801.8
42.5°	713.6	723.2	742.5	769.7	779.4
45°	678.3	689.6	713.6	744.1	756.9
47.5°	643.0	655.9	683.1	718.4	732.8
50°	603.0	619.0	652.7	692.8	708.8
52.5°	564.5	583.7	620.6	665.5	686.3
55°	524.4	543.6	591.7	638.2	660.7
57.5°	479.5	505.1	558.1	611.0	635.0
60°	437.8	461.8	526.0	583.7	607.8
62.5°	392.9	425.0	493.9	554.8	578.9
65°	346.4	381.7	460.2	521.2	545.2
67.5°	304.7	343.2	426.6	487.5	511.6
70°	255.0	303.1	389.7	450.6	474.7
72.5°	208.5	261.4	351.2	410.5	433.0
75°	163.6	222.9	311.1	364.0	375.2
77.5°	121.9	184.4	269.4	291.9	283.8
80°	86.6	147.5	210.1	198.8	203.7
82.5°	56.1	112.3	129.9	147.5	152.3
85°	32.1	65.7	80.2	86.6	89.8
87.5°	14.4	24.1	32.1	32.1	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)