

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: P313305

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-HRP-CP187-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: P313305
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: 24FCZ2-55HE-UNV-L83050-HRP-CP187-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB 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: 3485.0 lumens
Efficiency: N/A
Efficacy: 81.0 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

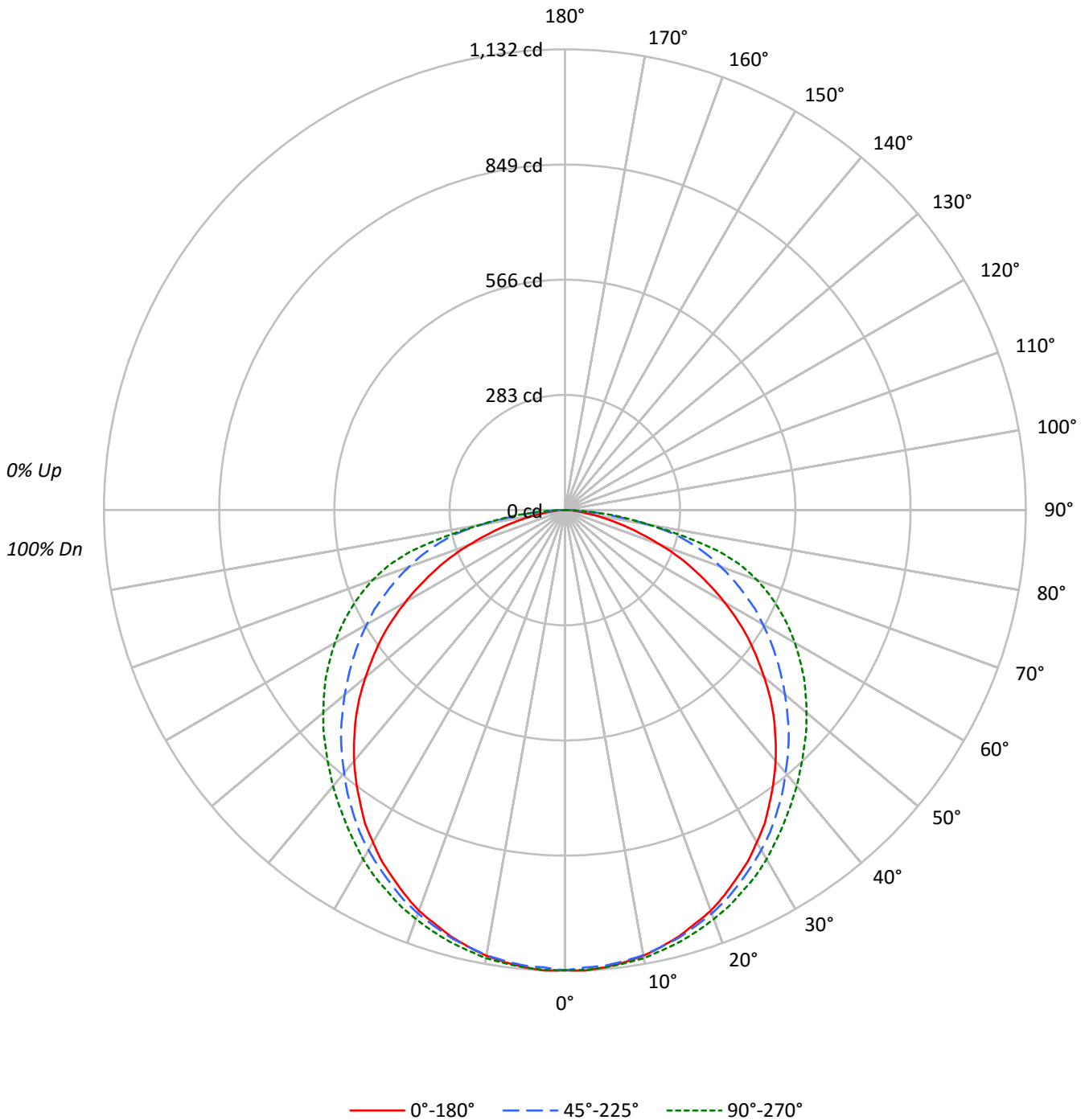
Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1521	1521	1521
5°	1523	1517	1523
10°	1519	1517	1527
15°	1510	1514	1528
20°	1500	1510	1531
25°	1481	1503	1534
30°	1464	1498	1539
35°	1440	1491	1541
40°	1415	1481	1555
45°	1383	1480	1580
50°	1338	1478	1622
55°	1290	1489	1681
60°	1217	1512	1755
65°	1124	1547	1853
70°	982	1602	1974
75°	796	1684	2040
80°	588	1650	1650
85°	451	1216	1374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	3.1
10°-20°	307.6	8.8
20°-30°	468.3	13.4
30°-40°	568.6	16.3
40°-50°	600.7	17.2
50°-60°	566.8	16.3
60°-70°	471.3	13.5
70°-80°	310.1	8.9
80°-90°	84.5	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°	883.0	25.3
0°-40°	1451.6	41.7
0°-60°	2619.1	75.2
0°-90°	3485.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3485.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1128	1128	1123	1128	1128	107
15°	1084	1086	1087	1097	1097	306
25°	998	1004	1012	1030	1033	460
35°	877	887	908	931	938	549
45°	727	741	778	816	830	560
55°	550	573	635	694	716	490
65°	353	394	486	557	582	349
75°	153	223	324	384	392	165
85°	29	64	79	88	89	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1130.7	1130.7	1130.7	1130.7	1130.7
2.5°	1132.2	1130.7	1124.9	1130.7	1130.7
5°	1127.8	1127.8	1123.4	1127.8	1127.8
7.5°	1120.5	1120.5	1117.6	1123.4	1123.4
10°	1111.7	1111.7	1110.3	1117.6	1117.6
12.5°	1098.6	1100.1	1098.6	1107.4	1107.4
15°	1084.0	1085.5	1086.9	1097.2	1097.2
17.5°	1065.1	1068.0	1070.9	1082.6	1084.0
20°	1047.5	1049.0	1054.8	1068.0	1069.4
22.5°	1024.2	1028.6	1035.9	1049.0	1053.4
25°	997.9	1003.8	1012.5	1030.0	1033.0
27.5°	973.1	977.5	989.2	1008.2	1014.0
30°	942.5	949.8	964.4	983.4	990.6
32.5°	913.3	920.6	938.1	958.6	964.4
35°	876.8	887.1	907.5	930.8	938.1
37.5°	841.8	852.0	876.8	903.1	911.9
40°	805.4	817.0	843.3	873.9	885.6
42.5°	766.0	782.0	811.2	844.8	857.9
45°	726.6	741.2	777.6	815.6	830.2
47.5°	684.3	701.8	741.2	786.4	803.9
50°	639.0	660.9	706.1	755.8	774.7
52.5°	593.8	618.6	669.7	725.1	745.5
55°	550.0	573.4	634.7	694.5	716.4
57.5°	501.9	531.1	598.2	662.4	684.3
60°	452.3	484.4	561.7	628.8	652.2
62.5°	402.7	439.2	526.7	593.8	618.6
65°	353.1	393.9	485.8	557.3	582.1
67.5°	304.9	350.2	447.9	519.4	544.2
70°	249.5	306.4	407.1	477.1	501.9
72.5°	198.4	264.1	367.7	433.3	455.2
75°	153.2	223.2	323.9	383.7	392.5
77.5°	112.3	182.4	278.7	299.1	300.6
80°	75.9	145.9	213.0	210.1	213.0
82.5°	49.6	109.4	134.2	150.3	151.7
85°	29.2	64.2	78.8	87.5	89.0
87.5°	14.6	21.9	27.7	29.2	32.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)