

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: P313878

Luminaire Tested: **24FCZ2-35-UNV-L83050-CP125-W2A-U-4500K**

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: P313878
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-UNV-L83050-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 3368.0 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

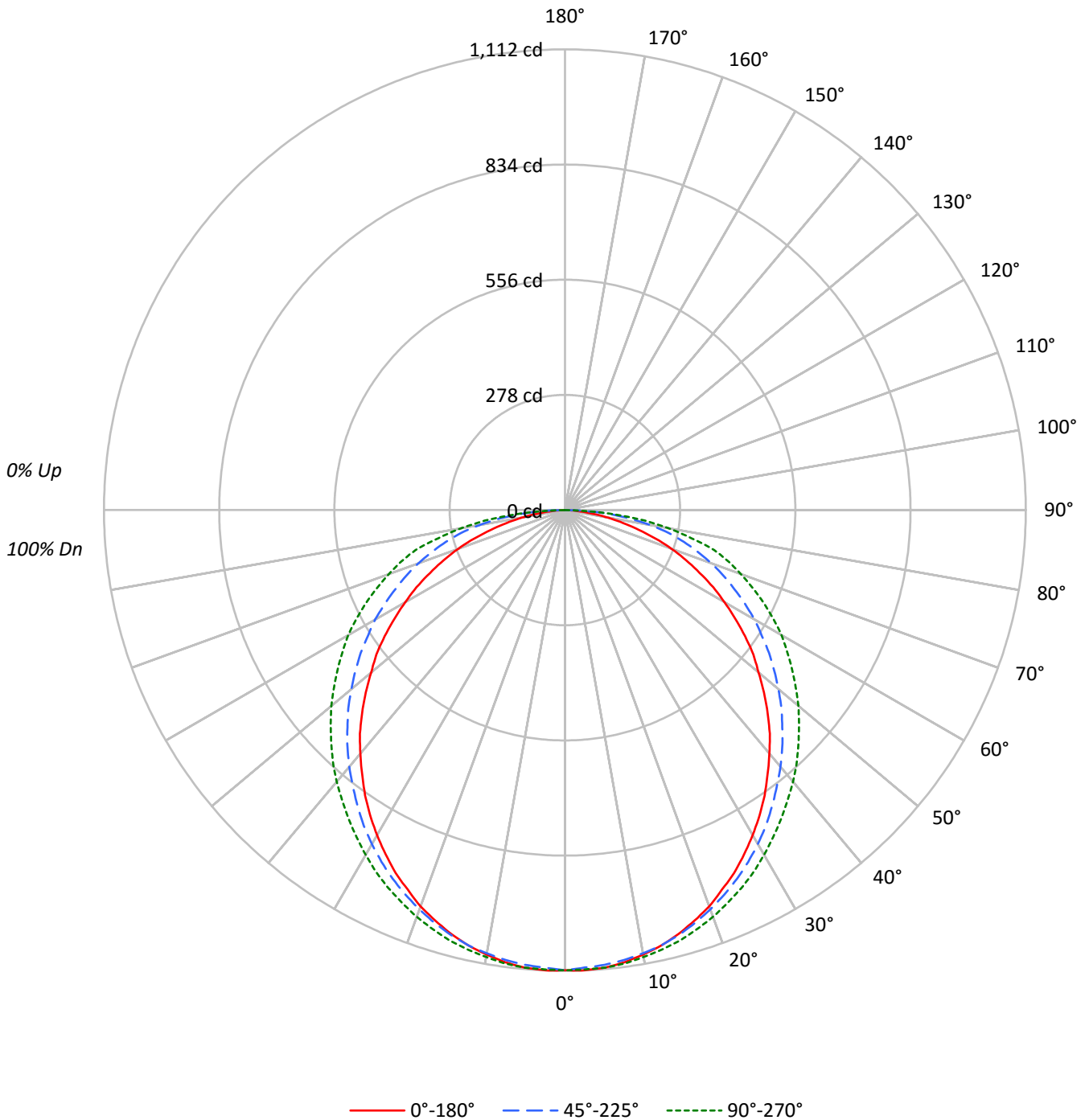
Input Watts (W): 29.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	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	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1494	1494	1494
5°	1497	1488	1497
10°	1489	1484	1496
15°	1476	1479	1497
20°	1458	1469	1496
25°	1435	1458	1495
30°	1408	1446	1493
35°	1380	1432	1494
40°	1348	1421	1503
45°	1316	1412	1516
50°	1277	1408	1539
55°	1245	1410	1570
60°	1197	1422	1624
65°	1142	1437	1683
70°	1081	1482	1776
75°	964	1545	1940
80°	823	1636	1983
85°	587	1621	1897



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.1	3.1
10°-20°	300.6	8.9
20°-30°	454.0	13.5
30°-40°	547.2	16.2
40°-50°	574.4	17.1
50°-60°	537.4	16.0
60°-70°	443.8	13.2
70°-80°	302.4	9.0
80°-90°	103.1	3.1
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°	859.7	25.5
0°-40°	1406.8	41.8
0°-60°	2518.6	74.8
0°-90°	3368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3368.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1111	1111	1111	1111	1111	
5°	1108	1107	1102	1108	1108	105
15°	1059	1060	1062	1073	1075	299
25°	967	971	982	1001	1007	445
35°	840	849	872	901	910	525
45°	692	706	742	782	797	533
55°	531	552	601	650	669	474
65°	359	389	451	508	528	356
75°	186	228	297	353	373	198
85°	38	75	105	118	123	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1110.7	1110.7	1110.7	1110.7	1110.7
2.5°	1111.9	1110.7	1105.1	1110.7	1109.6
5°	1108.5	1107.4	1101.8	1108.5	1108.5
7.5°	1100.7	1100.7	1095.1	1102.9	1104.0
10°	1089.5	1089.5	1086.2	1095.1	1095.1
12.5°	1076.1	1076.1	1076.1	1085.0	1086.2
15°	1059.3	1060.5	1061.6	1072.7	1075.0
17.5°	1039.2	1041.5	1044.8	1058.2	1060.5
20°	1018.0	1020.2	1025.8	1041.5	1044.8
22.5°	991.2	996.8	1004.6	1022.5	1025.8
25°	966.6	971.1	982.2	1001.2	1006.8
27.5°	936.4	943.1	957.6	977.8	985.6
30°	906.2	912.9	930.8	954.3	961.0
32.5°	873.8	883.9	902.9	927.5	935.3
35°	840.3	849.3	871.6	900.7	909.6
37.5°	803.4	815.7	840.3	871.6	882.8
40°	767.7	781.1	809.0	842.6	856.0
42.5°	731.9	745.3	776.6	814.6	828.0
45°	691.7	706.2	742.0	782.2	796.7
47.5°	651.5	669.3	708.5	750.9	766.6
50°	610.1	630.2	672.7	717.4	735.3
52.5°	573.2	592.2	636.9	685.0	701.8
55°	530.8	552.0	601.2	650.4	669.3
57.5°	487.2	510.7	563.2	616.8	635.8
60°	444.7	470.4	528.5	582.2	603.4
62.5°	403.4	429.1	489.4	545.3	566.5
65°	358.7	388.9	451.4	508.4	528.5
67.5°	316.2	348.6	414.6	470.4	490.6
70°	274.9	306.2	376.6	431.3	451.4
72.5°	230.2	266.0	336.3	393.3	414.6
75°	185.5	228.0	297.2	353.1	373.2
77.5°	144.1	187.7	257.0	302.8	312.9
80°	106.2	150.9	211.2	243.6	255.9
82.5°	68.2	112.9	160.9	184.4	194.4
85°	38.0	74.9	105.0	118.4	122.9
87.5°	15.6	32.4	42.5	48.0	48.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)