

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: P310632

Luminaire Tested: **24FCZ2-35-UNV-L82765-CA08-W2A-U-5700K**

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: P310632
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-L82765-CA08-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5700K 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: 3390.0 lumens
Efficiency: N/A
Efficacy: 117.7 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

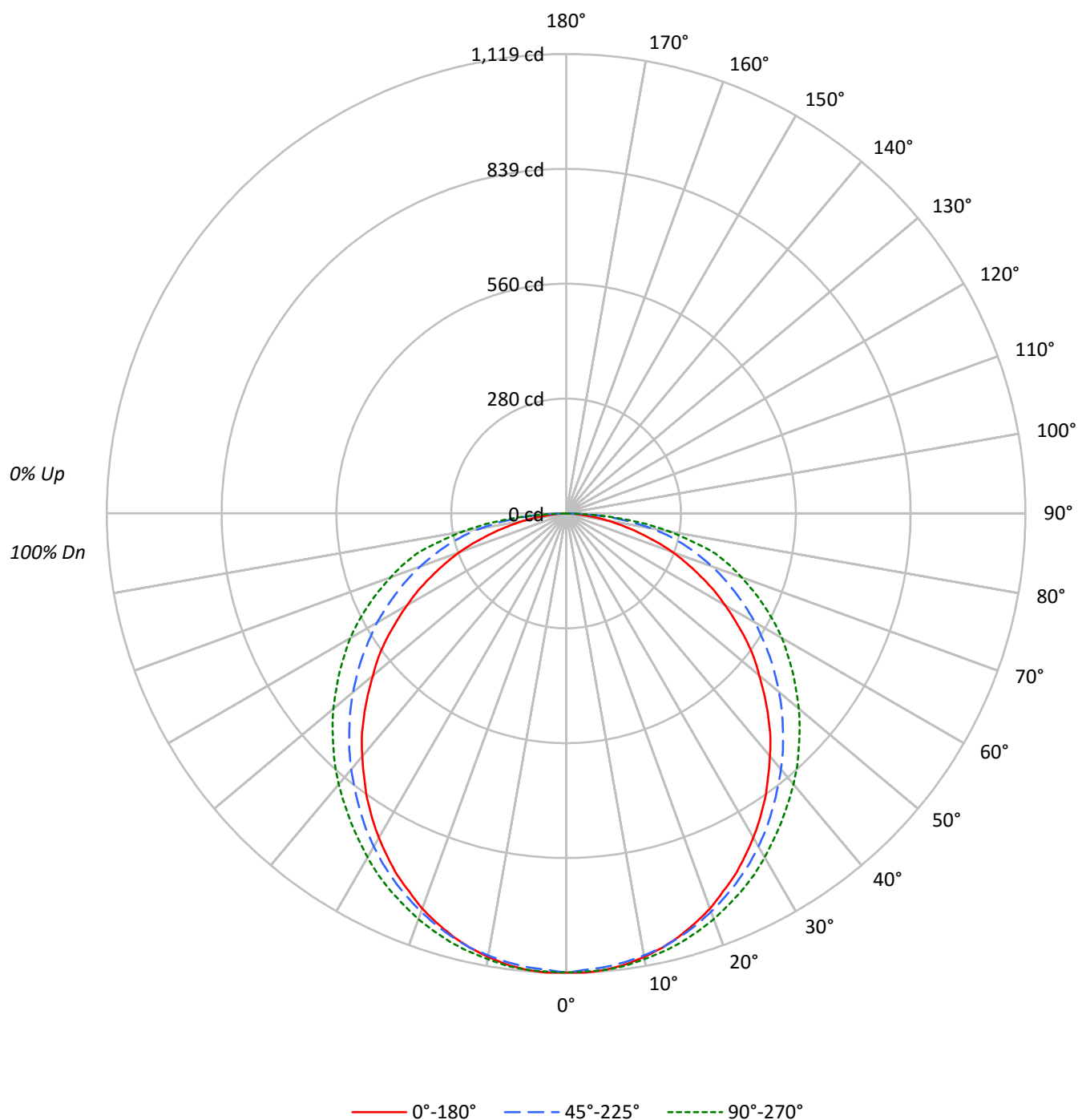
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1504	1504	1504
5°	1507	1498	1507
10°	1498	1494	1506
15°	1485	1488	1507
20°	1467	1478	1506
25°	1444	1468	1504
30°	1417	1456	1503
35°	1389	1441	1504
40°	1357	1430	1513
45°	1325	1421	1526
50°	1285	1417	1549
55°	1253	1419	1580
60°	1204	1432	1635
65°	1149	1447	1694
70°	1089	1491	1788
75°	971	1555	1953
80°	828	1647	1996
85°	590	1632	1910



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.8	3.1
10°-20°	302.5	8.9
20°-30°	456.9	13.5
30°-40°	550.7	16.2
40°-50°	578.2	17.1
50°-60°	540.9	16.0
60°-70°	446.7	13.2
70°-80°	304.4	9.0
80°-90°	103.8	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°	865.3	25.5
0°-40°	1416.0	41.8
0°-60°	2535.1	74.8
0°-90°	3390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3390.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1116	1115	1109	1116	1116	106
15°	1066	1067	1068	1080	1082	301
25°	973	977	989	1008	1013	448
35°	846	855	877	906	916	529
45°	696	711	747	787	802	537
55°	534	556	605	655	674	477
65°	361	391	454	512	532	358
75°	187	229	299	355	376	199
85°	38	75	106	119	124	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1118.0	1118.0	1118.0	1118.0	1118.0
2.5°	1119.1	1118.0	1112.4	1118.0	1116.9
5°	1115.7	1114.6	1109.0	1115.7	1115.7
7.5°	1107.9	1107.9	1102.2	1110.1	1111.2
10°	1096.6	1096.6	1093.2	1102.2	1102.2
12.5°	1083.1	1083.1	1083.1	1092.1	1093.2
15°	1066.3	1067.4	1068.5	1079.8	1082.0
17.5°	1046.0	1048.3	1051.6	1065.1	1067.4
20°	1024.6	1026.9	1032.5	1048.3	1051.6
22.5°	997.6	1003.3	1011.1	1029.1	1032.5
25°	972.9	977.4	988.6	1007.8	1013.4
27.5°	942.5	949.3	963.9	984.1	992.0
30°	912.2	918.9	936.9	960.5	967.3
32.5°	879.5	889.7	908.8	933.5	941.4
35°	845.8	854.8	877.3	906.5	915.5
37.5°	808.7	821.1	845.8	877.3	888.5
40°	772.7	786.2	814.3	848.1	861.6
42.5°	736.7	750.2	781.7	819.9	833.4
45°	696.2	710.8	746.8	787.3	801.9
47.5°	655.7	673.7	713.1	755.8	771.6
50°	614.1	634.4	677.1	722.1	740.1
52.5°	577.0	596.1	641.1	689.5	706.3
55°	534.3	555.6	605.1	654.6	673.7
57.5°	490.4	514.0	566.9	620.9	640.0
60°	447.6	473.5	532.0	586.0	607.4
62.5°	406.0	431.9	492.6	548.9	570.2
65°	361.0	391.4	454.4	511.8	532.0
67.5°	318.3	350.9	417.3	473.5	493.8
70°	276.7	308.2	379.0	434.2	454.4
72.5°	231.7	267.7	338.5	395.9	417.3
75°	186.7	229.4	299.2	355.4	375.7
77.5°	145.1	189.0	258.7	304.8	314.9
80°	106.9	151.8	212.6	245.2	257.6
82.5°	68.6	113.6	162.0	185.6	195.7
85°	38.2	75.4	105.7	119.2	123.7
87.5°	15.7	32.6	42.7	48.4	48.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)