

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: P310597

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CA125-W2A-U-6500K**

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: P310597
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: 24FCZ2-35HE-UNV-L82765-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 6500K 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: 3351.0 lumens
Efficiency: N/A
Efficacy: 123.2 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

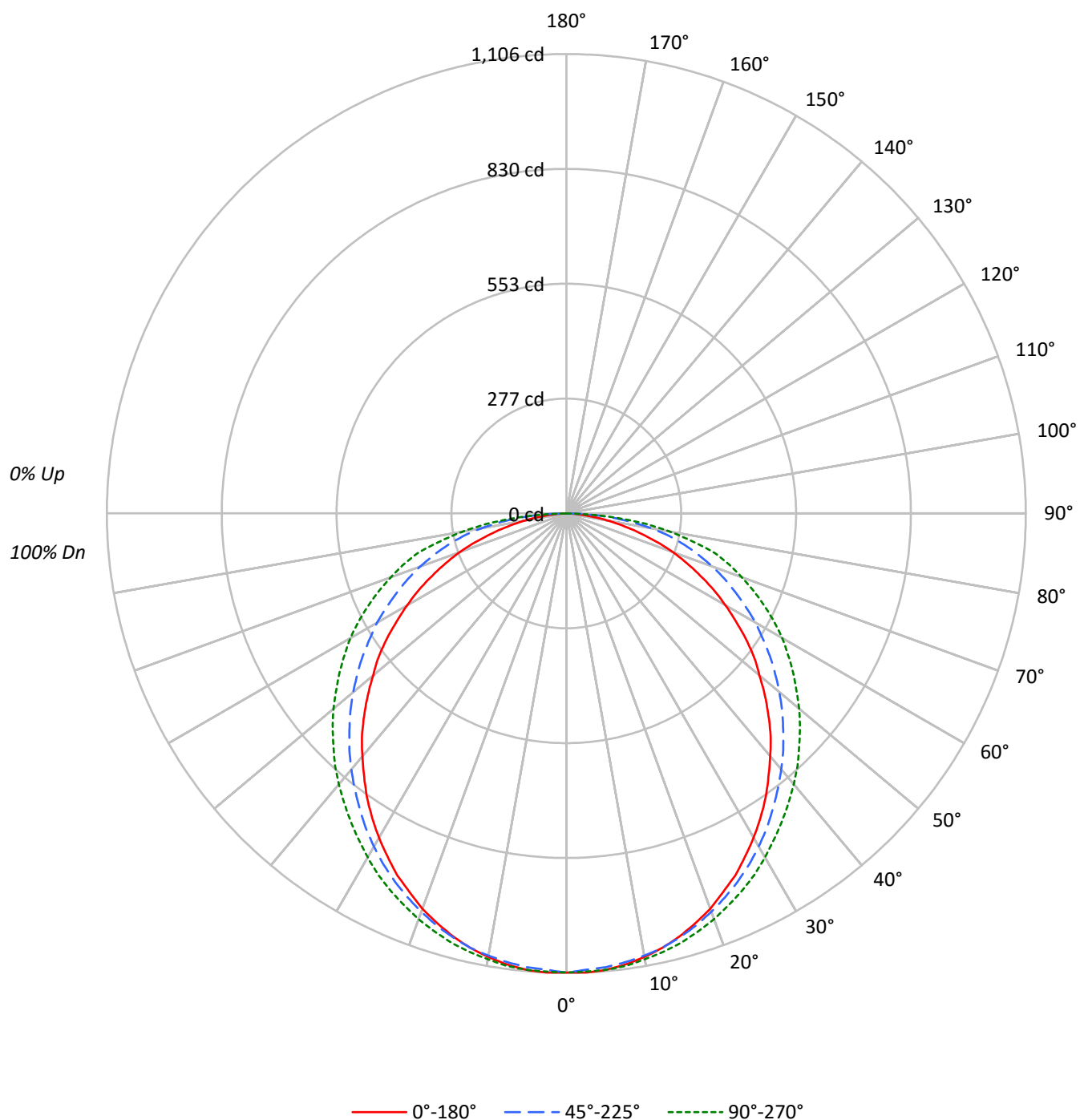
Input Watts (W): 27.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1487	1487	1487
5°	1490	1481	1490
10°	1481	1477	1489
15°	1468	1471	1490
20°	1450	1461	1488
25°	1428	1451	1487
30°	1401	1439	1485
35°	1373	1424	1486
40°	1342	1414	1496
45°	1310	1405	1508
50°	1271	1401	1531
55°	1239	1403	1562
60°	1191	1415	1616
65°	1136	1430	1674
70°	1076	1474	1767
75°	960	1537	1930
80°	818	1628	1973
85°	584	1613	1888



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	3.1
10°-20°	299.1	8.9
20°-30°	451.7	13.5
30°-40°	544.4	16.2
40°-50°	571.5	17.1
50°-60°	534.7	16.0
60°-70°	441.6	13.2
70°-80°	300.9	9.0
80°-90°	102.6	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°	855.3	25.5
0°-40°	1399.7	41.8
0°-60°	2505.9	74.8
0°-90°	3351.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3351.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1103	1102	1096	1103	1103	105
15°	1054	1055	1056	1067	1070	297
25°	962	966	977	996	1002	442
35°	836	845	867	896	905	522
45°	688	703	738	778	793	531
55°	528	549	598	647	666	471
65°	357	387	449	506	526	354
75°	185	227	296	351	371	197
85°	38	74	104	118	122	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1105.1	1105.1	1105.1	1105.1	1105.1
2.5°	1106.2	1105.1	1099.6	1105.1	1104.0
5°	1102.9	1101.8	1096.2	1102.9	1102.9
7.5°	1095.1	1095.1	1089.6	1097.3	1098.5
10°	1084.0	1084.0	1080.7	1089.6	1089.6
12.5°	1070.7	1070.7	1070.7	1079.6	1080.7
15°	1054.0	1055.1	1056.2	1067.3	1069.6
17.5°	1034.0	1036.2	1039.5	1052.9	1055.1
20°	1012.9	1015.1	1020.6	1036.2	1039.5
22.5°	986.2	991.7	999.5	1017.3	1020.6
25°	961.7	966.2	977.3	996.2	1001.7
27.5°	931.7	938.4	952.8	972.8	980.6
30°	901.7	908.3	926.1	949.5	956.1
32.5°	869.4	879.4	898.3	922.8	930.6
35°	836.1	845.0	867.2	896.1	905.0
37.5°	799.4	811.6	836.1	867.2	878.3
40°	763.8	777.1	804.9	838.3	851.6
42.5°	728.2	741.6	772.7	810.5	823.8
45°	688.2	702.7	738.2	778.3	792.7
47.5°	648.2	666.0	704.9	747.1	762.7
50°	607.0	627.1	669.3	713.8	731.6
52.5°	570.4	589.3	633.7	681.5	698.2
55°	528.1	549.2	598.1	647.1	666.0
57.5°	484.7	508.1	560.3	613.7	632.6
60°	442.5	468.1	525.9	579.2	600.4
62.5°	401.4	426.9	487.0	542.6	563.7
65°	356.9	386.9	449.2	505.9	525.9
67.5°	314.6	346.9	412.5	468.1	488.1
70°	273.5	304.6	374.7	429.2	449.2
72.5°	229.0	264.6	334.7	391.4	412.5
75°	184.6	226.8	295.7	351.3	371.3
77.5°	143.4	186.8	255.7	301.3	311.3
80°	105.6	150.1	210.1	242.4	254.6
82.5°	67.8	112.3	160.1	183.4	193.5
85°	37.8	74.5	104.5	117.9	122.3
87.5°	15.6	32.2	42.2	47.8	47.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)