

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: P310595

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CA125-W2A-U-5500K**

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: P310595
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-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5500K 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: 3333.0 lumens
Efficiency: N/A
Efficacy: 124.8 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

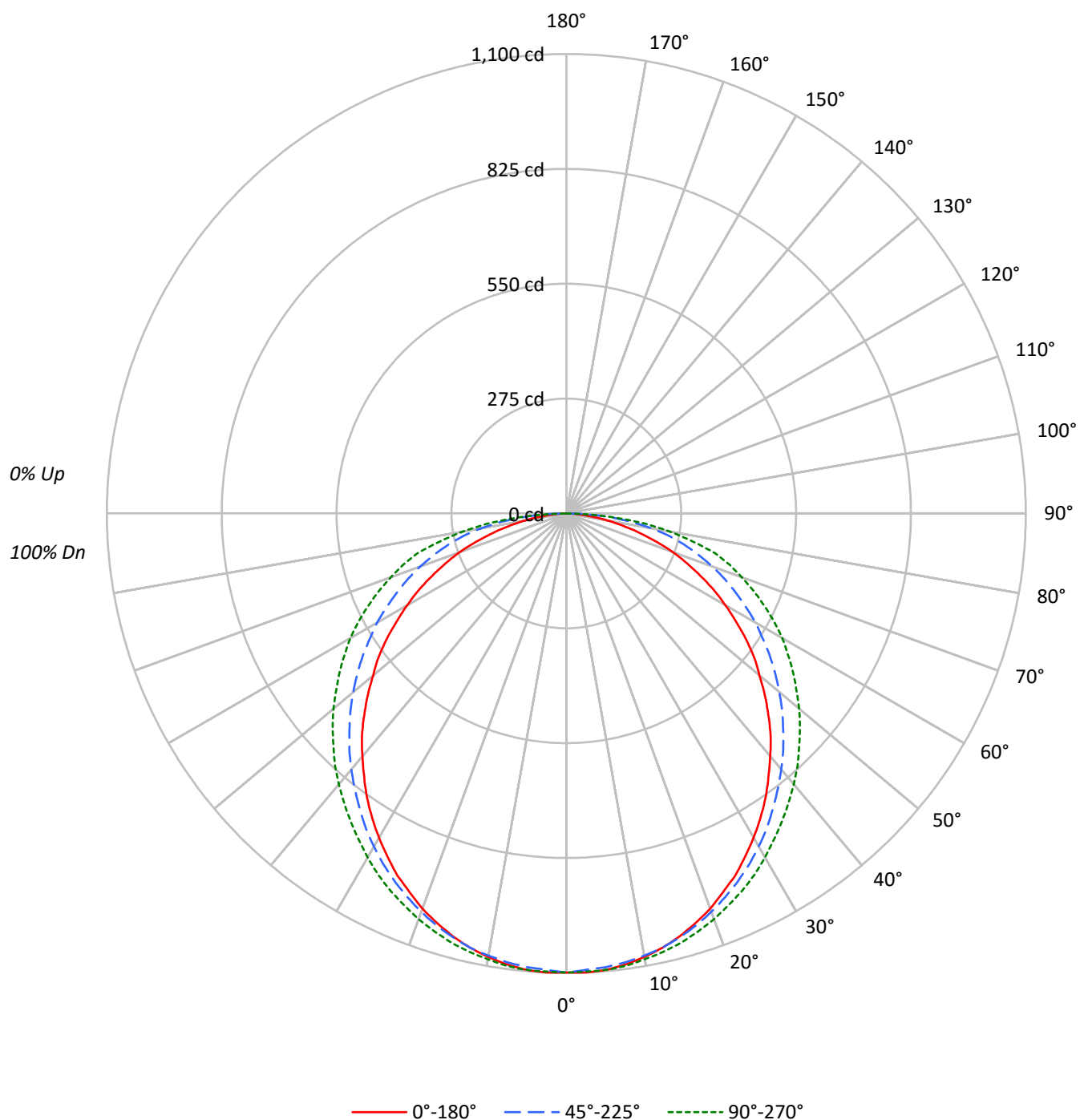
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1479	1479	1479
5°	1482	1473	1482
10°	1473	1469	1481
15°	1460	1463	1482
20°	1442	1454	1481
25°	1420	1443	1479
30°	1393	1431	1478
35°	1366	1417	1478
40°	1334	1406	1488
45°	1302	1397	1500
50°	1264	1393	1523
55°	1232	1396	1554
60°	1184	1408	1607
65°	1130	1422	1665
70°	1070	1466	1758
75°	954	1529	1920
80°	814	1619	1962
85°	580	1604	1877



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	3.1
10°-20°	297.4	8.9
20°-30°	449.3	13.5
30°-40°	541.5	16.2
40°-50°	568.5	17.1
50°-60°	531.8	16.0
60°-70°	439.2	13.2
70°-80°	299.3	9.0
80°-90°	102.1	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°	850.7	25.5
0°-40°	1392.2	41.8
0°-60°	2492.5	74.8
0°-90°	3333.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3333.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1099	1099	1099	1099	1099	
5°	1097	1096	1090	1097	1097	104
15°	1048	1049	1050	1062	1064	296
25°	956	961	972	991	996	440
35°	832	840	862	891	900	520
45°	684	699	734	774	788	528
55°	525	546	595	644	662	469
65°	355	385	447	503	523	352
75°	184	226	294	349	369	196
85°	38	74	104	117	122	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1099.2	1099.2	1099.2	1099.2	1099.2
2.5°	1100.3	1099.2	1093.7	1099.2	1098.1
5°	1097.0	1095.9	1090.3	1097.0	1097.0
7.5°	1089.2	1089.2	1083.7	1091.5	1092.6
10°	1078.2	1078.2	1074.9	1083.7	1083.7
12.5°	1064.9	1064.9	1064.9	1073.8	1074.9
15°	1048.3	1049.4	1050.5	1061.6	1063.8
17.5°	1028.4	1030.6	1034.0	1047.2	1049.4
20°	1007.4	1009.6	1015.2	1030.6	1034.0
22.5°	980.9	986.4	994.1	1011.8	1015.2
25°	956.5	961.0	972.0	990.8	996.4
27.5°	926.7	933.3	947.7	967.6	975.3
30°	896.8	903.5	921.2	944.4	951.0
32.5°	864.8	874.7	893.5	917.8	925.6
35°	831.6	840.4	862.5	891.3	900.1
37.5°	795.1	807.3	831.6	862.5	873.6
40°	759.7	773.0	800.6	833.8	847.1
42.5°	724.3	737.6	768.6	806.1	819.4
45°	684.5	698.9	734.3	774.1	788.5
47.5°	644.7	662.4	701.1	743.1	758.6
50°	603.8	623.7	665.7	709.9	727.6
52.5°	567.3	586.1	630.3	677.9	694.5
55°	525.3	546.3	594.9	643.6	662.4
57.5°	482.1	505.4	557.3	610.4	629.2
60°	440.1	465.6	523.1	576.1	597.1
62.5°	399.2	424.6	484.4	539.6	560.7
65°	355.0	384.8	446.8	503.2	523.1
67.5°	312.9	345.0	410.3	465.6	485.5
70°	272.0	303.0	372.7	426.9	446.8
72.5°	227.8	263.2	332.9	389.3	410.3
75°	183.6	225.6	294.2	349.4	369.3
77.5°	142.7	185.8	254.3	299.7	309.6
80°	105.1	149.3	209.0	241.1	253.2
82.5°	67.5	111.7	159.2	182.5	192.4
85°	37.6	74.1	103.9	117.2	121.6
87.5°	15.5	32.1	42.0	47.6	47.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)