

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: P310586

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-CA08-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: P310586
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-CA08-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" 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: 3345.0 lumens
Efficiency: N/A
Efficacy: 125.3 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

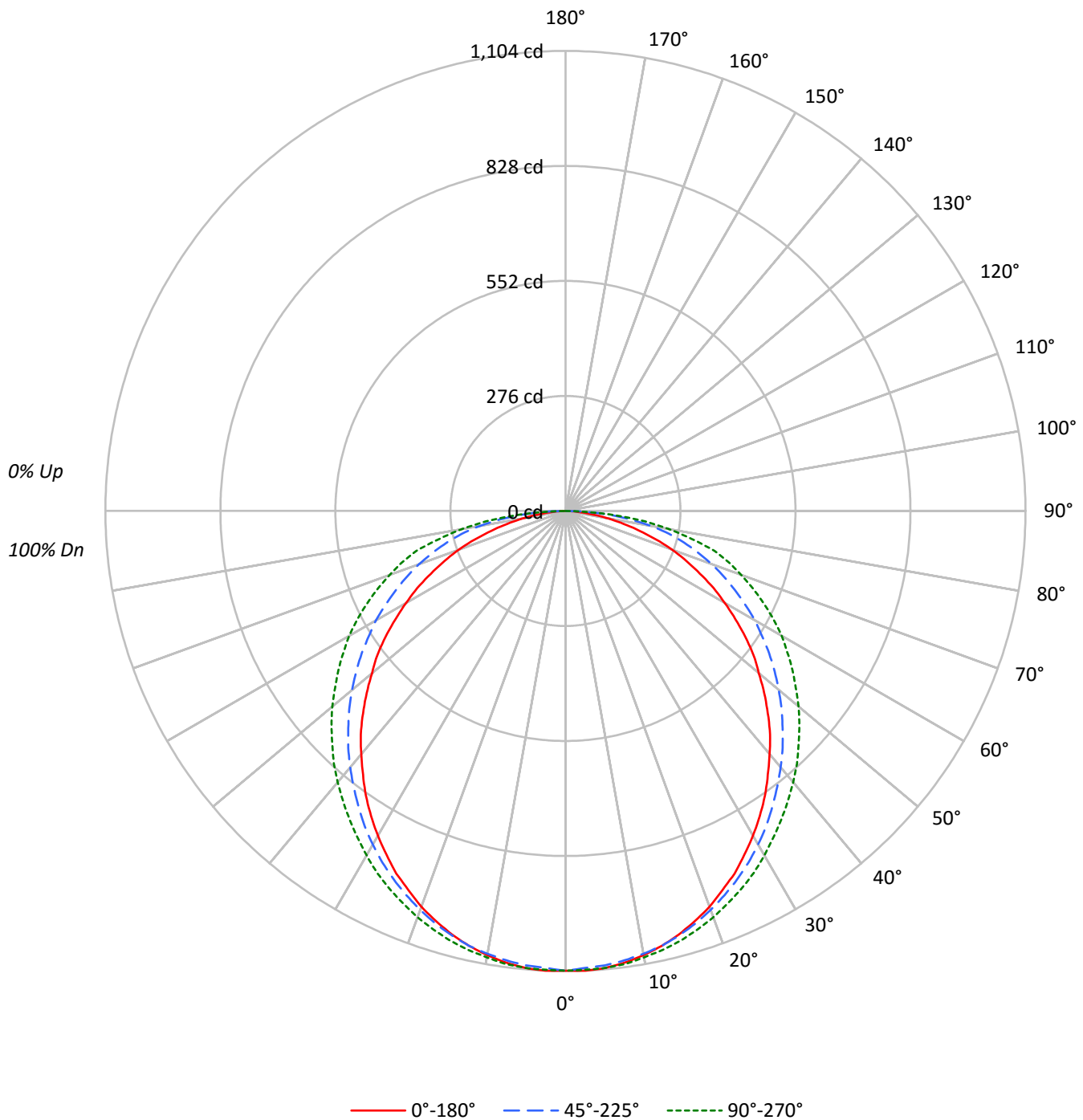
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1484	1484	1484
5°	1487	1478	1487
10°	1478	1474	1486
15°	1466	1469	1487
20°	1448	1459	1486
25°	1425	1448	1484
30°	1398	1436	1483
35°	1371	1422	1484
40°	1339	1411	1493
45°	1307	1402	1506
50°	1268	1398	1529
55°	1237	1401	1559
60°	1189	1412	1613
65°	1134	1428	1671
70°	1074	1471	1764
75°	958	1535	1927
80°	817	1626	1969
85°	582	1610	1885



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	3.1
10°-20°	298.5	8.9
20°-30°	450.9	13.5
30°-40°	543.4	16.2
40°-50°	570.5	17.1
50°-60°	533.7	16.0
60°-70°	440.8	13.2
70°-80°	300.3	9.0
80°-90°	102.4	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°	853.8	25.5
0°-40°	1397.2	41.8
0°-60°	2501.5	74.8
0°-90°	3345.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3345.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1103	1103	1103	1103	1103	
5°	1101	1100	1094	1101	1101	104
15°	1052	1053	1054	1065	1068	297
25°	960	964	976	994	1000	442
35°	835	844	866	894	903	522
45°	687	701	737	777	791	530
55°	527	548	597	646	665	471
65°	356	386	448	505	525	353
75°	184	226	295	351	371	196
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°	1103.2	1103.2	1103.2	1103.2	1103.2
2.5°	1104.3	1103.2	1097.6	1103.2	1102.0
5°	1100.9	1099.8	1094.3	1100.9	1100.9
7.5°	1093.2	1093.2	1087.6	1095.4	1096.5
10°	1082.1	1082.1	1078.7	1087.6	1087.6
12.5°	1068.7	1068.7	1068.7	1077.6	1078.7
15°	1052.1	1053.2	1054.3	1065.4	1067.6
17.5°	1032.1	1034.3	1037.7	1051.0	1053.2
20°	1011.0	1013.3	1018.8	1034.3	1037.7
22.5°	984.4	990.0	997.7	1015.5	1018.8
25°	960.0	964.4	975.5	994.4	999.9
27.5°	930.0	936.7	951.1	971.1	978.9
30°	900.1	906.7	924.5	947.8	954.4
32.5°	867.9	877.9	896.7	921.1	928.9
35°	834.6	843.5	865.7	894.5	903.4
37.5°	798.0	810.2	834.6	865.7	876.8
40°	762.4	775.8	803.5	836.8	850.1
42.5°	726.9	740.2	771.3	809.1	822.4
45°	687.0	701.4	736.9	776.9	791.3
47.5°	647.0	664.8	703.6	745.8	761.3
50°	606.0	625.9	668.1	712.5	730.3
52.5°	569.3	588.2	632.6	680.3	697.0
55°	527.2	548.2	597.1	645.9	664.8
57.5°	483.9	507.2	559.3	612.6	631.5
60°	441.7	467.2	524.9	578.2	599.3
62.5°	400.6	426.2	486.1	541.6	562.7
65°	356.2	386.2	448.4	505.0	524.9
67.5°	314.1	346.3	411.7	467.2	487.2
70°	273.0	304.1	374.0	428.4	448.4
72.5°	228.6	264.1	334.1	390.7	411.7
75°	184.2	226.4	295.2	350.7	370.7
77.5°	143.2	186.4	255.3	300.8	310.7
80°	105.4	149.8	209.8	241.9	254.1
82.5°	67.7	112.1	159.8	183.1	193.1
85°	37.7	74.4	104.3	117.6	122.1
87.5°	15.5	32.2	42.2	47.7	47.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)