

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: P309246

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-CA125-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: P309246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 2536.0 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

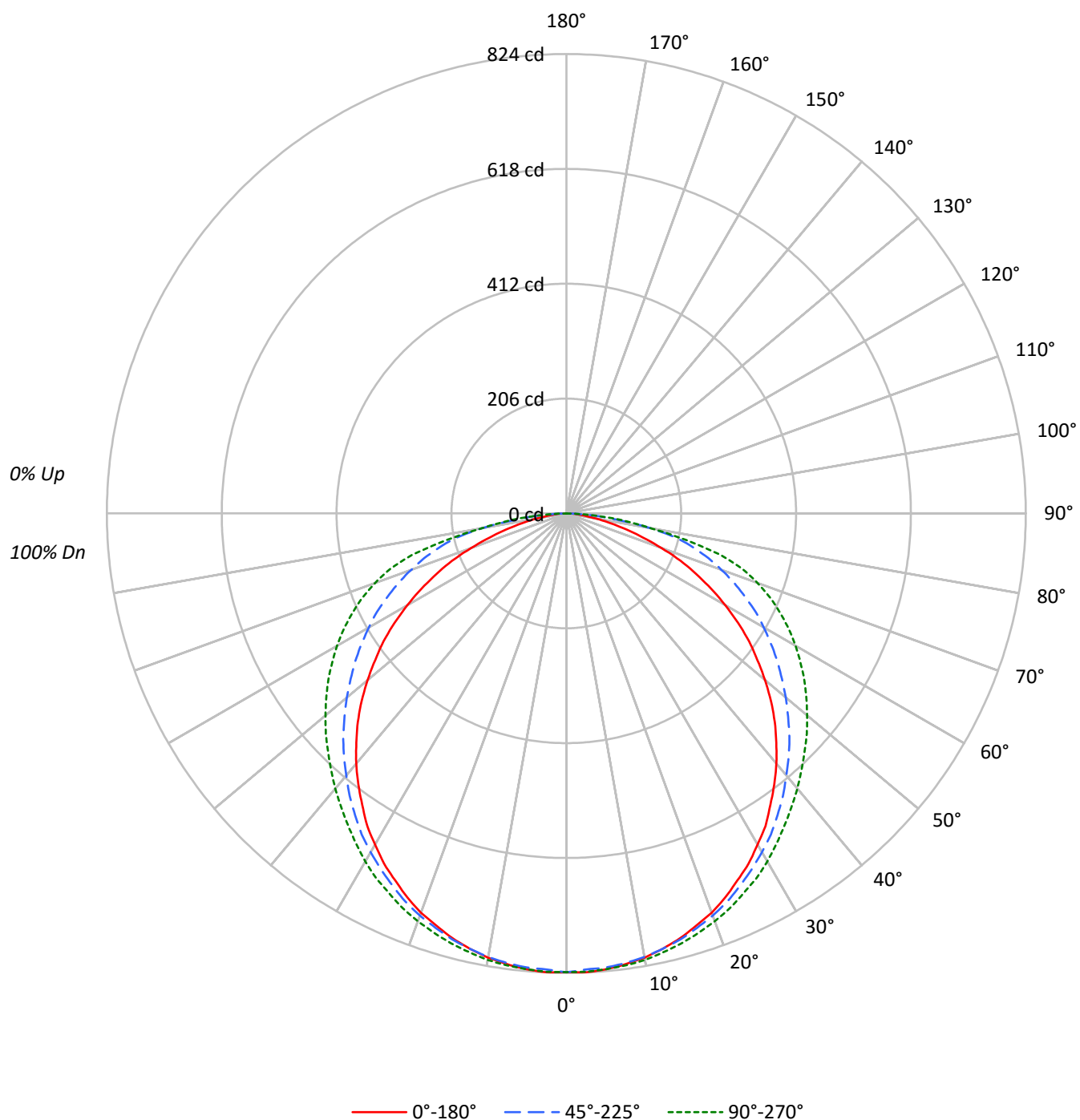
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	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	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1107	1107	1107
5°	1108	1104	1108
10°	1105	1104	1111
15°	1099	1102	1112
20°	1091	1099	1114
25°	1078	1094	1116
30°	1065	1090	1120
35°	1048	1085	1121
40°	1029	1078	1132
45°	1006	1077	1149
50°	973	1076	1180
55°	939	1083	1223
60°	886	1100	1277
65°	818	1125	1349
70°	714	1165	1437
75°	580	1225	1485
80°	428	1201	1201
85°	327	885	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	3.1
10°-20°	223.8	8.8
20°-30°	340.8	13.4
30°-40°	413.8	16.3
40°-50°	437.1	17.2
50°-60°	412.5	16.3
60°-70°	343.0	13.5
70°-80°	225.6	8.9
80°-90°	61.5	2.4
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°	642.5	25.3
0°-40°	1056.3	41.7
0°-60°	1905.9	75.2
0°-90°	2536.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2536.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	821	821	818	821	821	78
15°	789	790	791	798	798	222
25°	726	730	737	750	752	335
35°	638	646	660	677	683	399
45°	529	539	566	594	604	407
55°	400	417	462	505	521	357
65°	257	287	354	406	424	254
75°	112	162	236	279	286	120
85°	21	47	57	64	65	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	822.8	822.8	822.8	822.8	822.8
2.5°	823.9	822.8	818.6	822.8	822.8
5°	820.7	820.7	817.5	820.7	820.7
7.5°	815.4	815.4	813.3	817.5	817.5
10°	809.0	809.0	807.9	813.3	813.3
12.5°	799.5	800.5	799.5	805.8	805.8
15°	788.8	789.9	791.0	798.4	798.4
17.5°	775.0	777.2	779.3	787.8	788.8
20°	762.3	763.4	767.6	777.2	778.2
22.5°	745.3	748.5	753.8	763.4	766.5
25°	726.2	730.4	736.8	749.6	751.7
27.5°	708.1	711.3	719.8	733.6	737.9
30°	685.8	691.2	701.8	715.6	720.9
32.5°	664.6	669.9	682.7	697.5	701.8
35°	638.1	645.5	660.4	677.4	682.7
37.5°	612.6	620.0	638.1	657.2	663.6
40°	586.1	594.5	613.7	636.0	644.4
42.5°	557.4	569.1	590.3	614.7	624.3
45°	528.7	539.3	565.9	593.5	604.1
47.5°	497.9	510.7	539.3	572.2	585.0
50°	465.0	480.9	513.9	550.0	563.8
52.5°	432.1	450.2	487.3	527.7	542.5
55°	400.3	417.2	461.8	505.4	521.3
57.5°	365.2	386.5	435.3	482.0	497.9
60°	329.1	352.5	408.7	457.6	474.6
62.5°	293.0	319.6	383.3	432.1	450.2
65°	256.9	286.7	353.5	405.6	423.6
67.5°	221.9	254.8	325.9	378.0	396.0
70°	181.5	223.0	296.2	347.2	365.2
72.5°	144.4	192.2	267.5	315.3	331.2
75°	111.5	162.4	235.7	279.2	285.6
77.5°	81.7	132.7	202.8	217.6	218.7
80°	55.2	106.2	155.0	152.9	155.0
82.5°	36.1	79.6	97.7	109.4	110.4
85°	21.2	46.7	57.3	63.7	64.8
87.5°	10.6	15.9	20.2	21.2	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)