

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: P309921

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-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: P309921
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
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-RDP-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 2248.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

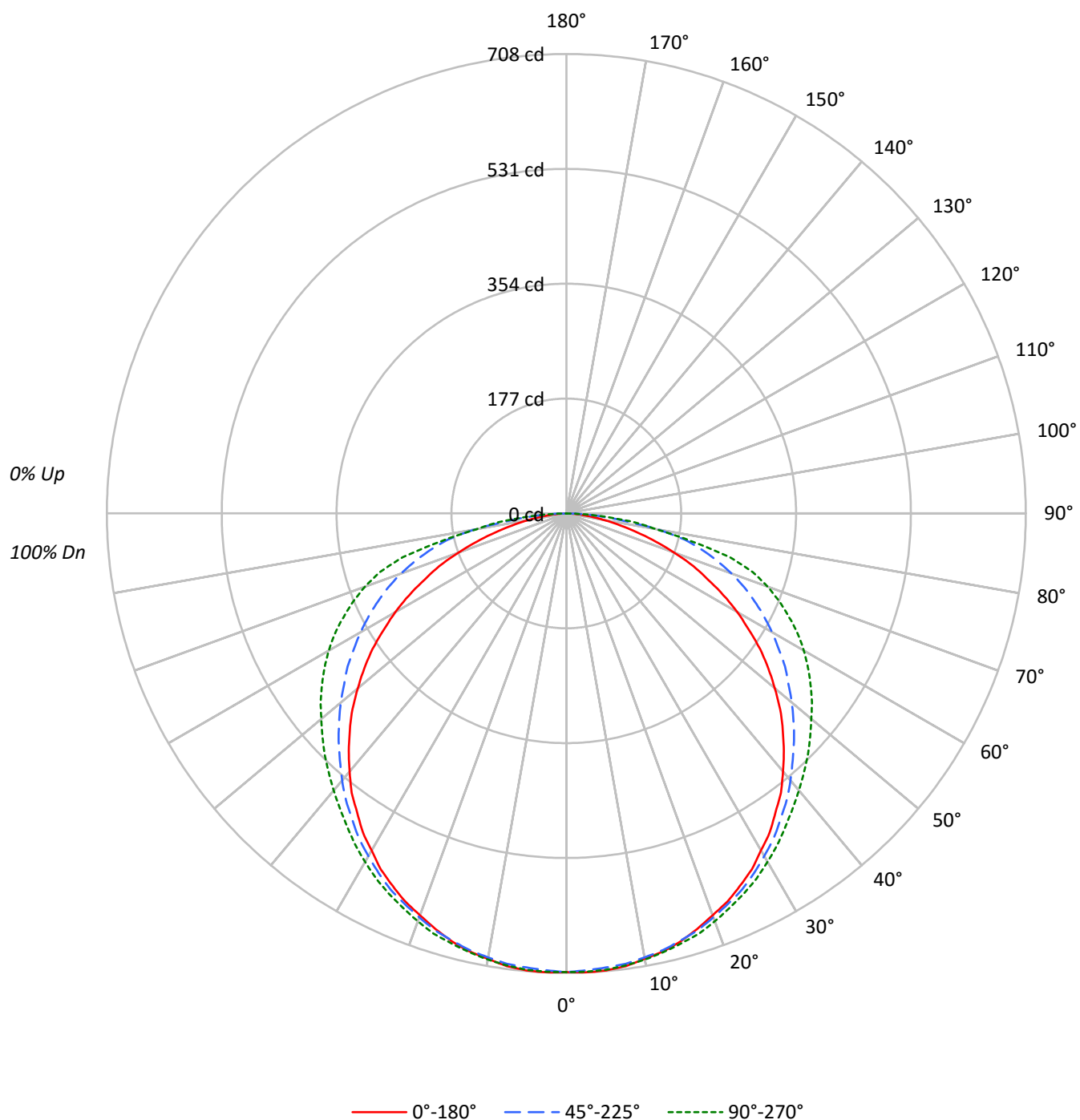
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	951	951	951
5°	955	949	953
10°	952	949	954
15°	951	949	955
20°	944	948	958
25°	940	950	960
30°	932	948	963
35°	923	945	967
40°	913	944	979
45°	898	944	1001
50°	878	950	1032
55°	855	965	1078
60°	819	984	1137
65°	767	1019	1207
70°	697	1066	1299
75°	591	1124	1356
80°	466	1132	1097
85°	344	861	963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.1	3.0
10°-20°	193.0	8.6
20°-30°	295.1	13.1
30°-40°	360.8	16.0
40°-50°	384.5	17.1
50°-60°	367.7	16.4
60°-70°	311.5	13.9
70°-80°	209.3	9.3
80°-90°	59.0	2.6
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°	555.2	24.7
0°-40°	916.0	40.7
0°-60°	1668.2	74.2
0°-90°	2248.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2248.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	707	706	702	706	706	67
15°	682	682	681	687	686	192
25°	633	636	640	646	647	292
35°	562	566	575	586	589	352
45°	472	480	496	517	526	364
55°	365	378	411	444	459	325
65°	241	265	320	362	379	239
75°	114	155	216	253	261	122
85°	22	46	56	60	62	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	706.9	706.9	706.9	706.9	706.9
2.5°	708.0	708.0	704.7	706.9	706.9
5°	706.9	705.8	702.5	705.8	705.8
7.5°	703.6	702.5	700.2	703.6	702.5
10°	696.9	696.9	694.7	698.0	698.0
12.5°	691.3	690.2	689.1	693.6	692.4
15°	682.4	682.4	681.3	686.9	685.7
17.5°	671.3	672.4	673.5	677.9	679.1
20°	659.0	661.2	662.3	669.0	669.0
22.5°	647.8	649.0	651.2	657.9	657.9
25°	633.3	635.6	640.0	645.6	646.7
27.5°	618.8	620.0	625.5	633.3	634.5
30°	599.9	603.2	609.9	618.8	620.0
32.5°	583.2	586.5	594.3	603.2	605.5
35°	562.0	566.4	575.4	586.5	588.7
37.5°	543.0	546.4	557.5	569.8	573.1
40°	519.6	526.3	537.4	551.9	557.5
42.5°	496.2	502.9	516.3	535.2	541.9
45°	471.7	479.5	496.2	517.4	526.3
47.5°	447.1	456.0	475.0	499.5	509.6
50°	419.3	430.4	453.8	481.7	492.8
52.5°	392.5	405.9	431.5	462.7	477.2
55°	364.6	378.0	411.4	443.8	459.4
57.5°	333.4	351.2	388.0	424.8	441.6
60°	304.4	321.1	365.7	405.9	422.6
62.5°	273.2	295.5	343.4	385.8	402.5
65°	240.8	265.4	320.0	362.4	379.1
67.5°	211.9	238.6	296.6	339.0	355.7
70°	177.3	210.7	271.0	313.3	330.1
72.5°	145.0	181.8	244.2	285.4	301.1
75°	113.7	155.0	216.3	253.1	260.9
77.5°	84.7	128.2	187.3	202.9	197.4
80°	60.2	102.6	146.1	138.3	141.6
82.5°	39.0	78.1	90.3	102.6	105.9
85°	22.3	45.7	55.8	60.2	62.4
87.5°	10.0	16.7	22.3	22.3	21.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)