

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: P309966

Luminaire Tested: **24FCZ2-35-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: P309966
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: 24FCZ2-35-UNV-L82765-RDP-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 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: 2272.0 lumens
Efficiency: N/A
Efficacy: 78.9 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

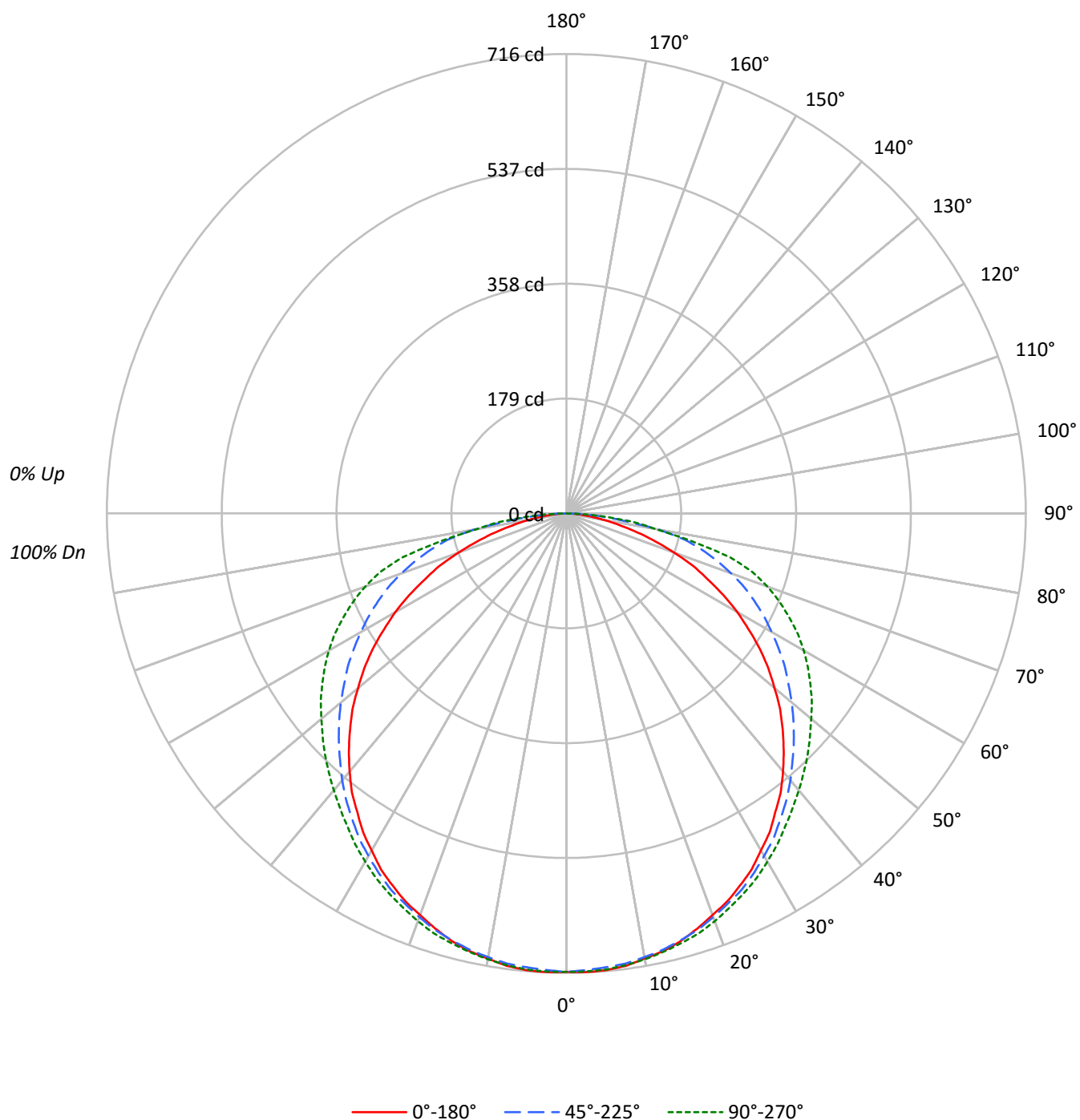
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	68	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°	961	961	961
5°	965	959	964
10°	962	959	964
15°	961	959	965
20°	954	958	968
25°	950	960	970
30°	942	958	974
35°	933	955	977
40°	922	954	990
45°	907	954	1012
50°	887	960	1043
55°	864	975	1089
60°	828	995	1149
65°	775	1030	1220
70°	705	1077	1312
75°	597	1136	1371
80°	472	1144	1109
85°	347	869	974



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	3.0
10°-20°	195.1	8.6
20°-30°	298.3	13.1
30°-40°	364.7	16.0
40°-50°	388.6	17.1
50°-60°	371.6	16.4
60°-70°	314.8	13.9
70°-80°	211.6	9.3
80°-90°	59.7	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°	561.1	24.7
0°-40°	925.8	40.7
0°-60°	1686.0	74.2
0°-90°	2272.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2272.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	714	714	714	714	714	
5°	714	713	710	713	713	68
15°	690	690	689	694	693	194
25°	640	642	647	652	654	295
35°	568	572	582	593	595	356
45°	477	485	502	523	532	368
55°	368	382	416	448	464	328
65°	243	268	323	366	383	242
75°	115	157	219	256	264	123
85°	22	46	56	61	63	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	714.5	714.5	714.5	714.5	714.5
2.5°	715.6	715.6	712.2	714.5	714.5
5°	714.5	713.4	710.0	713.4	713.4
7.5°	711.1	710.0	707.7	711.1	710.0
10°	704.3	704.3	702.1	705.5	705.5
12.5°	698.7	697.6	696.4	701.0	699.8
15°	689.7	689.7	688.6	694.2	693.1
17.5°	678.4	679.5	680.7	685.2	686.3
20°	666.0	668.3	669.4	676.2	676.2
22.5°	654.8	655.9	658.1	664.9	664.9
25°	640.1	642.4	646.9	652.5	653.6
27.5°	625.5	626.6	632.2	640.1	641.2
30°	606.3	609.7	616.4	625.5	626.6
32.5°	589.4	592.8	600.7	609.7	611.9
35°	568.0	572.5	581.5	592.8	595.0
37.5°	548.8	552.2	563.5	575.9	579.2
40°	525.2	531.9	543.2	557.8	563.5
42.5°	501.5	508.2	521.8	540.9	547.7
45°	476.7	484.6	501.5	522.9	531.9
47.5°	451.9	460.9	480.1	504.9	515.0
50°	423.7	435.0	458.7	486.8	498.1
52.5°	396.7	410.2	436.1	467.7	482.3
55°	368.5	382.0	415.8	448.5	464.3
57.5°	337.0	355.0	392.2	429.4	446.3
60°	307.7	324.6	369.6	410.2	427.1
62.5°	276.1	298.6	347.1	389.9	406.8
65°	243.4	268.2	323.4	366.3	383.2
67.5°	214.1	241.2	299.8	342.6	359.5
70°	179.2	213.0	273.8	316.7	333.6
72.5°	146.5	183.7	246.8	288.5	304.3
75°	114.9	156.6	218.6	255.8	263.7
77.5°	85.6	129.6	189.3	205.1	199.5
80°	60.9	103.7	147.6	139.7	143.1
82.5°	39.4	78.9	91.3	103.7	107.1
85°	22.5	46.2	56.3	60.9	63.1
87.5°	10.1	16.9	22.5	22.5	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)