

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: P309969

Luminaire Tested: **24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-3000K**

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: P309969
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-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 3000K 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: 2017.0 lumens
Efficiency: N/A
Efficacy: 72.6 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

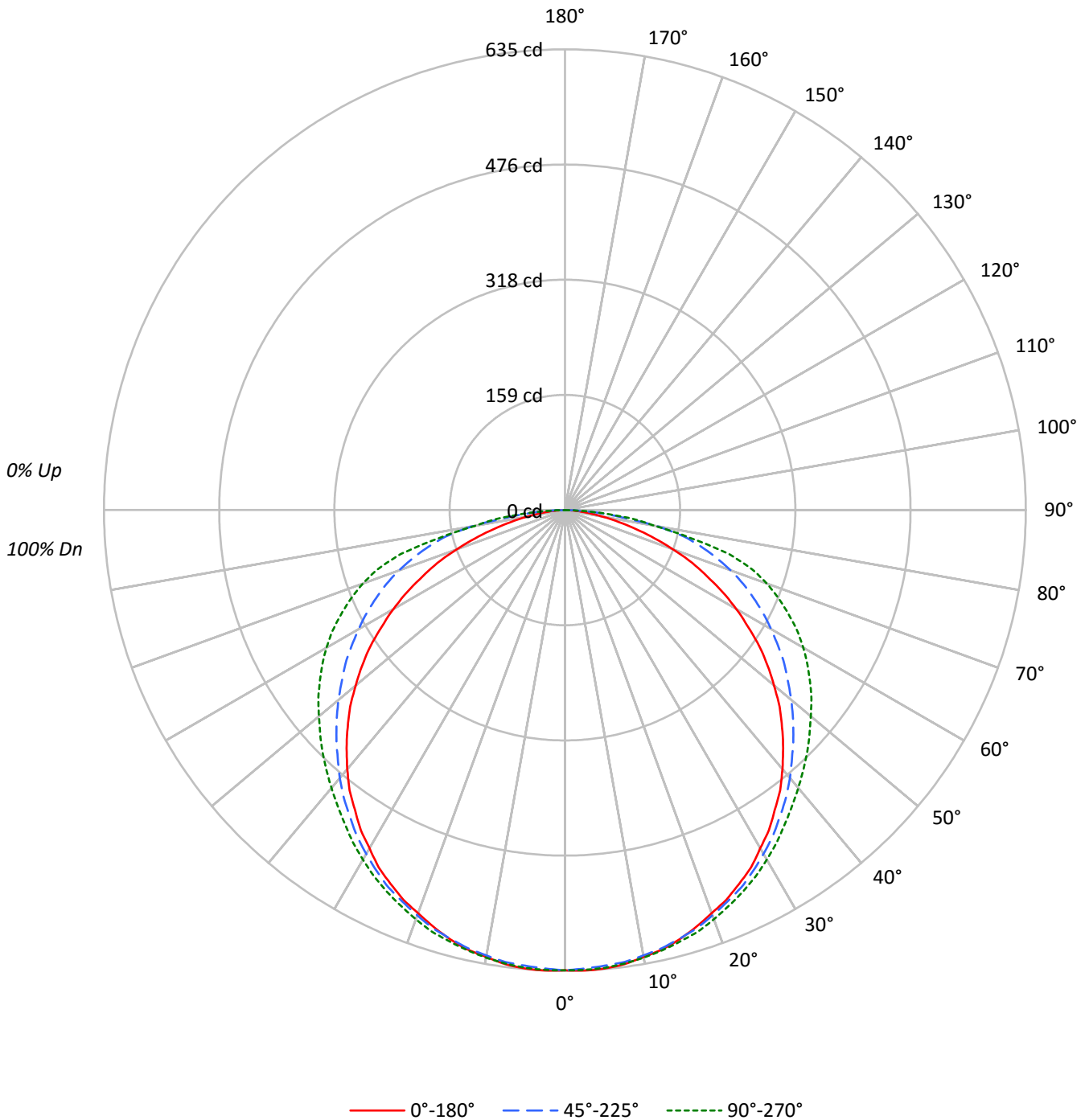
Input Watts (W): 27.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	853	853	853
5°	857	851	855
10°	854	852	856
15°	853	852	857
20°	847	851	860
25°	844	853	862
30°	836	850	864
35°	828	848	868
40°	819	847	879
45°	805	847	899
50°	787	852	926
55°	767	866	967
60°	735	883	1020
65°	688	914	1083
70°	626	956	1165
75°	530	1009	1217
80°	418	1016	985
85°	309	772	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	3.0
10°-20°	173.2	8.6
20°-30°	264.8	13.1
30°-40°	323.7	16.0
40°-50°	345.0	17.1
50°-60°	329.9	16.4
60°-70°	279.4	13.9
70°-80°	187.8	9.3
80°-90°	53.0	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°	498.2	24.7
0°-40°	821.9	40.7
0°-60°	1496.8	74.2
0°-90°	2017.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2017.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	634	634	634	634	634	
5°	634	633	630	633	633	60
15°	612	612	611	616	615	173
25°	568	570	574	579	580	262
35°	504	508	516	526	528	316
45°	423	430	445	464	472	326
55°	327	339	369	398	412	291
65°	216	238	287	325	340	215
75°	102	139	194	227	234	109
85°	20	41	50	54	56	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	634.3	634.3	634.3	634.3	634.3
2.5°	635.3	635.3	632.3	634.3	634.3
5°	634.3	633.3	630.3	633.3	633.3
7.5°	631.3	630.3	628.3	631.3	630.3
10°	625.3	625.3	623.3	626.3	626.3
12.5°	620.3	619.3	618.3	622.3	621.3
15°	612.3	612.3	611.3	616.3	615.3
17.5°	602.3	603.3	604.3	608.3	609.3
20°	591.3	593.3	594.3	600.3	600.3
22.5°	581.3	582.3	584.3	590.3	590.3
25°	568.3	570.3	574.3	579.3	580.3
27.5°	555.3	556.3	561.3	568.3	569.3
30°	538.2	541.2	547.2	555.3	556.3
32.5°	523.2	526.2	533.2	541.2	543.2
35°	504.2	508.2	516.2	526.2	528.2
37.5°	487.2	490.2	500.2	511.2	514.2
40°	466.2	472.2	482.2	495.2	500.2
42.5°	445.2	451.2	463.2	480.2	486.2
45°	423.2	430.2	445.2	464.2	472.2
47.5°	401.2	409.2	426.2	448.2	457.2
50°	376.2	386.2	407.2	432.2	442.2
52.5°	352.2	364.2	387.2	415.2	428.2
55°	327.1	339.2	369.2	398.2	412.2
57.5°	299.1	315.1	348.2	381.2	396.2
60°	273.1	288.1	328.1	364.2	379.2
62.5°	245.1	265.1	308.1	346.2	361.2
65°	216.1	238.1	287.1	325.1	340.2
67.5°	190.1	214.1	266.1	304.1	319.1
70°	159.1	189.1	243.1	281.1	296.1
72.5°	130.1	163.1	219.1	256.1	270.1
75°	102.0	139.1	194.1	227.1	234.1
77.5°	76.0	115.1	168.1	182.1	177.1
80°	54.0	92.0	131.1	124.1	127.1
82.5°	35.0	70.0	81.0	92.0	95.0
85°	20.0	41.0	50.0	54.0	56.0
87.5°	9.0	15.0	20.0	20.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)