

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: P309205

Luminaire Tested: **24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-3500K**

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: P309205
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: 24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (168) 3500K 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: 2007.0 lumens
Efficiency: N/A
Efficacy: 85.4 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

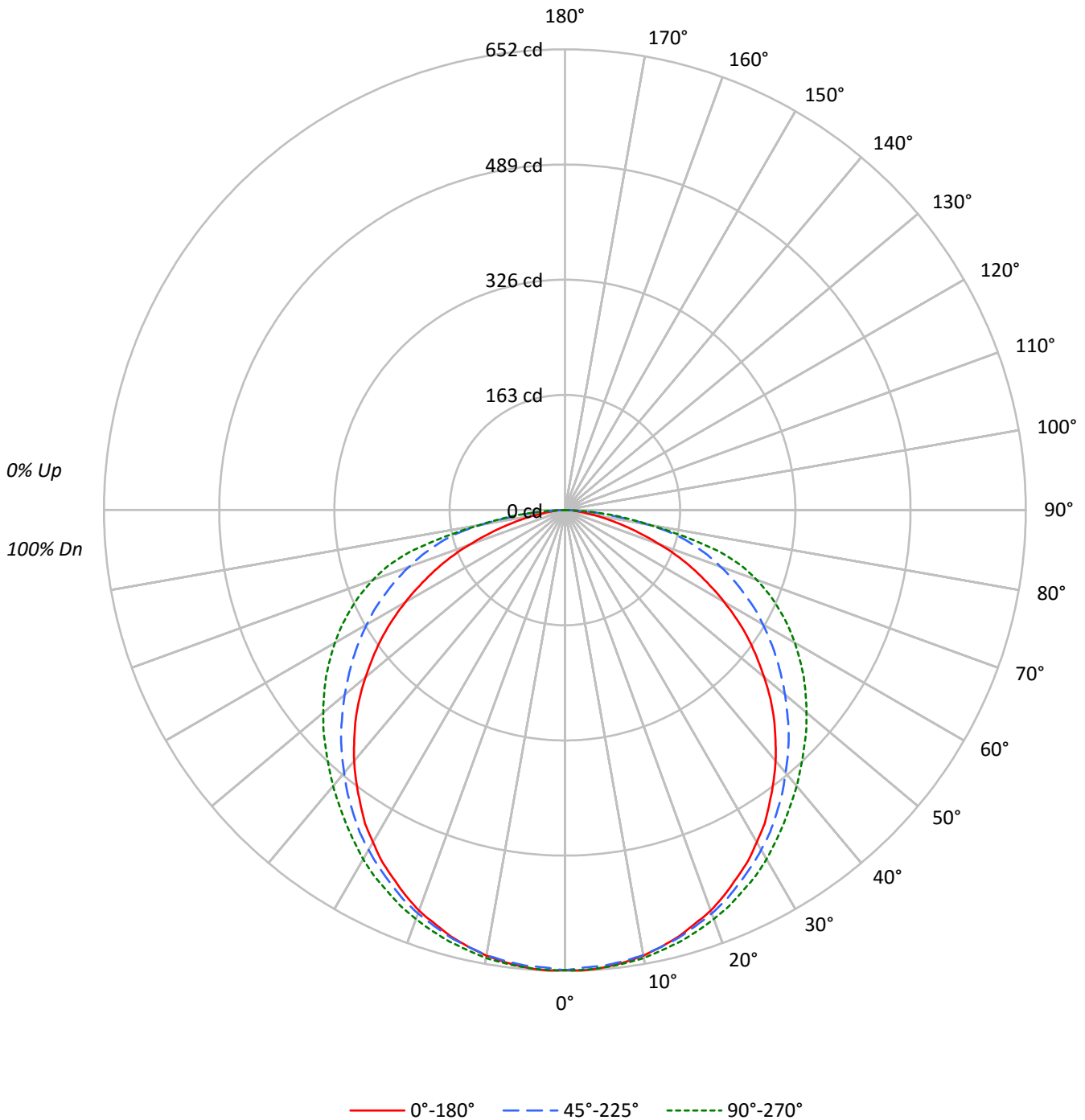
Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	876	876	876
5°	877	874	877
10°	875	874	879
15°	870	872	880
20°	864	870	882
25°	853	866	883
30°	843	863	886
35°	829	858	887
40°	815	853	896
45°	796	852	910
50°	770	851	934
55°	743	857	968
60°	701	871	1011
65°	647	891	1067
70°	565	922	1137
75°	459	970	1175
80°	339	951	951
85°	259	701	792



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	3.1
10°-20°	177.1	8.8
20°-30°	269.7	13.4
30°-40°	327.5	16.3
40°-50°	345.9	17.2
50°-60°	326.4	16.3
60°-70°	271.4	13.5
70°-80°	178.6	8.9
80°-90°	48.7	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°	508.5	25.3
0°-40°	836.0	41.7
0°-60°	1508.3	75.2
0°-90°	2007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	651	651	651	651	651	
5°	650	650	647	650	650	62
15°	624	625	626	632	632	176
25°	575	578	583	593	595	265
35°	505	511	523	536	540	316
45°	418	427	448	470	478	322
55°	317	330	366	400	412	282
65°	203	227	280	321	335	201
75°	88	129	186	221	226	95
85°	17	37	45	50	51	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	651.2	651.2	651.2	651.2	651.2
2.5°	652.0	651.2	647.8	651.2	651.2
5°	649.5	649.5	647.0	649.5	649.5
7.5°	645.3	645.3	643.6	647.0	647.0
10°	640.2	640.2	639.4	643.6	643.6
12.5°	632.7	633.5	632.7	637.7	637.7
15°	624.3	625.1	626.0	631.8	631.8
17.5°	613.4	615.0	616.7	623.4	624.3
20°	603.3	604.1	607.5	615.0	615.9
22.5°	589.8	592.4	596.6	604.1	606.6
25°	574.7	578.1	583.1	593.2	594.9
27.5°	560.4	562.9	569.7	580.6	584.0
30°	542.8	547.0	555.4	566.3	570.5
32.5°	526.0	530.2	540.3	552.0	555.4
35°	505.0	510.9	522.6	536.1	540.3
37.5°	484.8	490.7	505.0	520.1	525.1
40°	463.8	470.5	485.6	503.3	510.0
42.5°	441.1	450.4	467.2	486.5	494.1
45°	418.4	426.8	447.8	469.7	478.1
47.5°	394.1	404.1	426.8	452.9	463.0
50°	368.0	380.6	406.7	435.2	446.2
52.5°	342.0	356.3	385.7	417.6	429.4
55°	316.8	330.2	365.5	399.9	412.5
57.5°	289.0	305.8	344.5	381.5	394.1
60°	260.5	279.0	323.5	362.1	375.6
62.5°	231.9	252.9	303.3	342.0	356.3
65°	203.3	226.9	279.8	321.0	335.2
67.5°	175.6	201.7	257.9	299.1	313.4
70°	143.7	176.4	234.4	274.8	289.0
72.5°	114.3	152.1	211.7	249.5	262.1
75°	88.2	128.6	186.5	221.0	226.0
77.5°	64.7	105.0	160.5	172.2	173.1
80°	43.7	84.0	122.7	121.0	122.7
82.5°	28.6	63.0	77.3	86.5	87.4
85°	16.8	37.0	45.4	50.4	51.3
87.5°	8.4	12.6	16.0	16.8	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)