

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: P309835

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-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: P309835
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: 24FCZ2-30HE-UNV-L82765-RDP-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 1801.0 lumens
Efficiency: N/A
Efficacy: 85.0 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

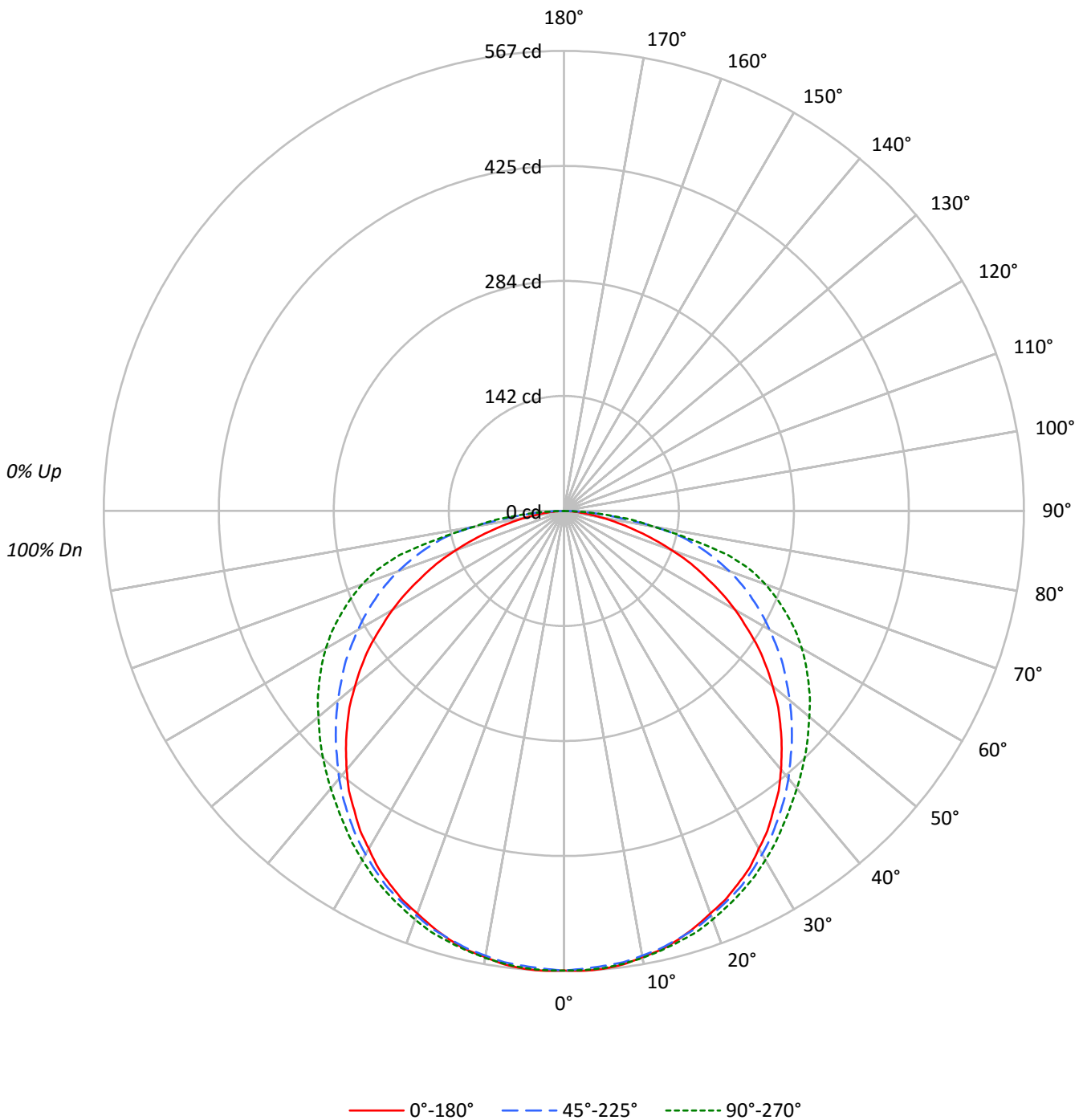
Input Watts (W): 21.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	67	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°	762	762	762
5°	765	760	764
10°	763	760	764
15°	762	760	765
20°	756	760	767
25°	753	761	769
30°	747	759	772
35°	739	757	775
40°	731	756	785
45°	719	756	802
50°	703	761	826
55°	685	773	863
60°	656	788	911
65°	614	816	967
70°	559	854	1040
75°	474	901	1087
80°	373	907	879
85°	276	690	772



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	3.0
10°-20°	154.6	8.6
20°-30°	236.4	13.1
30°-40°	289.1	16.0
40°-50°	308.1	17.1
50°-60°	294.6	16.4
60°-70°	249.5	13.9
70°-80°	167.7	9.3
80°-90°	47.3	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°	444.8	24.7
0°-40°	733.8	40.7
0°-60°	1336.5	74.2
0°-90°	1801.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1801.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	566	566	563	566	566	54
15°	547	547	546	550	549	154
25°	507	509	513	517	518	234
35°	450	454	461	470	472	282
45°	378	384	398	414	422	291
55°	292	303	330	356	368	260
65°	193	213	256	290	304	192
75°	91	124	173	203	209	98
85°	18	37	45	48	50	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	566.4	566.4	566.4	566.4	566.4
2.5°	567.3	567.3	564.6	566.4	566.4
5°	566.4	565.5	562.8	565.5	565.5
7.5°	563.7	562.8	561.0	563.7	562.8
10°	558.3	558.3	556.5	559.2	559.2
12.5°	553.9	553.0	552.1	555.6	554.7
15°	546.7	546.7	545.8	550.3	549.4
17.5°	537.8	538.7	539.6	543.1	544.0
20°	528.0	529.7	530.6	536.0	536.0
22.5°	519.0	519.9	521.7	527.1	527.1
25°	507.4	509.2	512.8	517.2	518.1
27.5°	495.8	496.7	501.2	507.4	508.3
30°	480.6	483.3	488.6	495.8	496.7
32.5°	467.2	469.9	476.1	483.3	485.1
35°	450.2	453.8	461.0	469.9	471.7
37.5°	435.0	437.7	446.7	456.5	459.2
40°	416.3	421.6	430.6	442.2	446.7
42.5°	397.5	402.9	413.6	428.8	434.2
45°	377.9	384.1	397.5	414.5	421.6
47.5°	358.2	365.4	380.6	400.2	408.2
50°	335.9	344.8	363.6	385.9	394.8
52.5°	314.4	325.2	345.7	370.7	382.3
55°	292.1	302.8	329.6	355.5	368.0
57.5°	267.1	281.4	310.9	340.4	353.8
60°	243.9	257.3	293.0	325.2	338.6
62.5°	218.9	236.7	275.1	309.1	322.5
65°	193.0	212.6	256.4	290.3	303.7
67.5°	169.7	191.2	237.6	271.6	285.0
70°	142.0	168.8	217.1	251.0	264.4
72.5°	116.1	145.6	195.6	228.7	241.2
75°	91.1	124.2	173.3	202.8	209.0
77.5°	67.9	102.7	150.1	162.6	158.1
80°	48.2	82.2	117.0	110.8	113.5
82.5°	31.3	62.5	72.4	82.2	84.9
85°	17.9	36.6	44.7	48.2	50.0
87.5°	8.0	13.4	17.9	17.9	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)