

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: P309882

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP125-W2A-U-4500K**

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: P309882
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: 24FCZ2-30-UNV-L82765-RDP-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 1851.0 lumens
Efficiency: N/A
Efficacy: 77.8 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

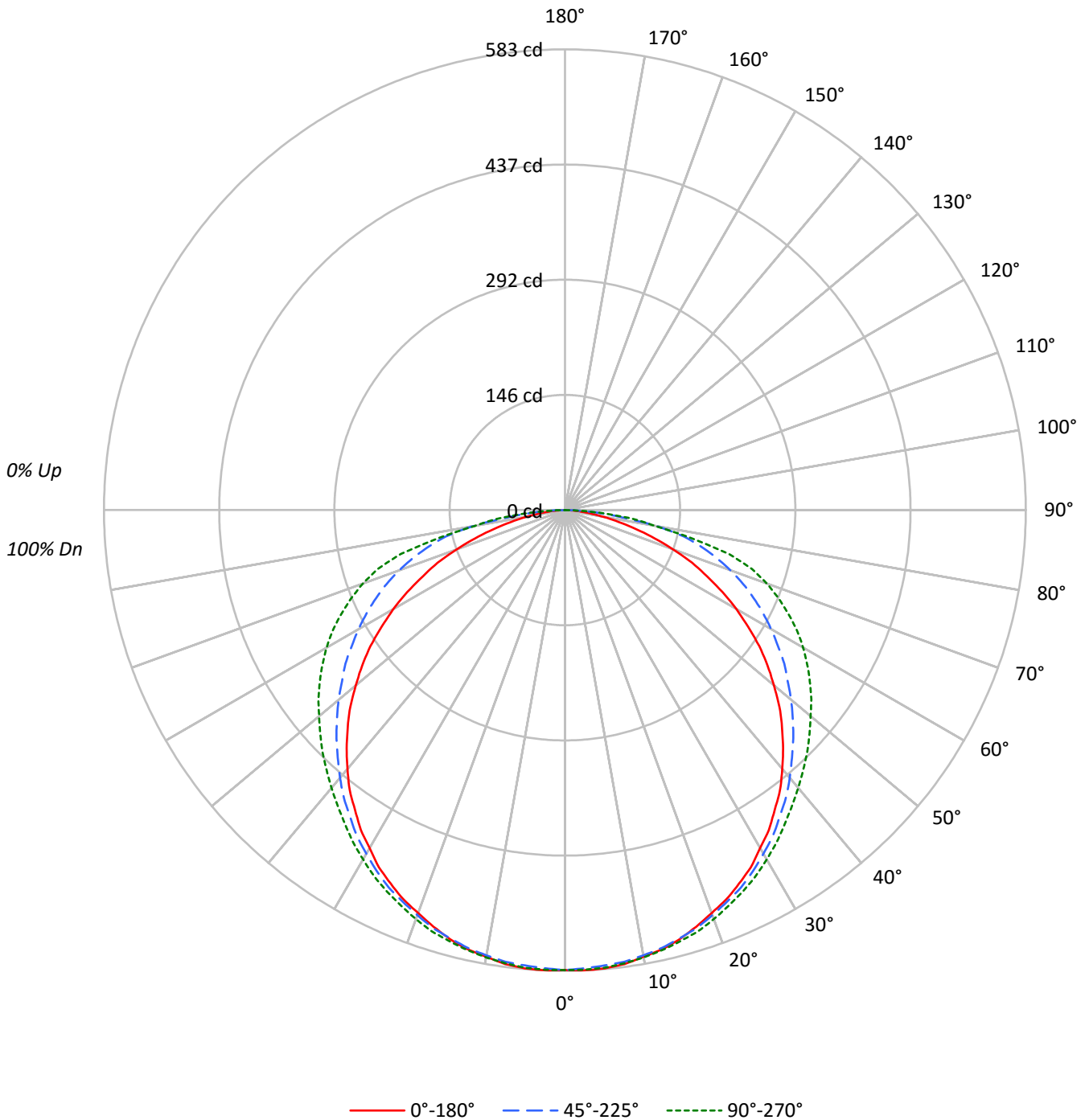
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	783	783	783
5°	786	781	785
10°	784	781	785
15°	783	781	786
20°	777	781	789
25°	774	782	791
30°	767	780	793
35°	760	778	796
40°	751	777	806
45°	739	777	825
50°	723	782	849
55°	704	795	887
60°	674	810	936
65°	631	839	994
70°	574	878	1069
75°	487	926	1117
80°	384	932	903
85°	284	709	794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.2	3.0
10°-20°	158.9	8.6
20°-30°	243.0	13.1
30°-40°	297.1	16.0
40°-50°	316.6	17.1
50°-60°	302.7	16.4
60°-70°	256.5	13.9
70°-80°	172.4	9.3
80°-90°	48.6	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°	457.1	24.7
0°-40°	754.2	40.7
0°-60°	1373.6	74.2
0°-90°	1851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1851.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	582	581	578	581	581	55
15°	562	562	561	566	565	158
25°	522	523	527	532	532	240
35°	463	466	474	483	485	290
45°	388	395	409	426	433	300
55°	300	311	339	365	378	267
65°	198	218	264	298	312	197
75°	94	128	178	208	215	100
85°	18	38	46	50	51	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	582.1	582.1	582.1	582.1	582.1
2.5°	583.0	583.0	580.3	582.1	582.1
5°	582.1	581.2	578.4	581.2	581.2
7.5°	579.3	578.4	576.6	579.3	578.4
10°	573.8	573.8	572.0	574.7	574.7
12.5°	569.2	568.3	567.4	571.1	570.2
15°	561.9	561.9	561.0	565.6	564.6
17.5°	552.7	553.6	554.5	558.2	559.1
20°	542.6	544.4	545.4	550.9	550.9
22.5°	533.4	534.3	536.2	541.7	541.7
25°	521.5	523.3	527.0	531.6	532.5
27.5°	509.6	510.5	515.1	521.5	522.4
30°	493.9	496.7	502.2	509.6	510.5
32.5°	480.2	482.9	489.4	496.7	498.5
35°	462.7	466.4	473.7	482.9	484.8
37.5°	447.1	449.9	459.1	469.2	471.9
40°	427.8	433.4	442.5	454.5	459.1
42.5°	408.6	414.1	425.1	440.7	446.2
45°	388.4	394.8	408.6	426.0	433.4
47.5°	368.2	375.5	391.1	411.3	419.6
50°	345.2	354.4	373.7	396.6	405.8
52.5°	323.2	334.2	355.3	381.0	393.0
55°	300.2	311.2	338.8	365.4	378.3
57.5°	274.5	289.2	319.5	349.8	363.6
60°	250.6	264.4	301.1	334.2	348.0
62.5°	224.9	243.3	282.8	317.7	331.4
65°	198.3	218.5	263.5	298.4	312.2
67.5°	174.4	196.5	244.2	279.1	292.9
70°	146.0	173.5	223.1	258.0	271.8
72.5°	119.4	149.7	201.1	235.0	247.9
75°	93.6	127.6	178.1	208.4	214.8
77.5°	69.8	105.6	154.2	167.1	162.5
80°	49.6	84.5	120.3	113.8	116.6
82.5°	32.1	64.3	74.4	84.5	87.2
85°	18.4	37.6	45.9	49.6	51.4
87.5°	8.3	13.8	18.4	18.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)