

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: P309865

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CA08-W2A-U-5000K**

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: P309865
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-CA08-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (168) 5000K 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: 1920.0 lumens
Efficiency: N/A
Efficacy: 80.3 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

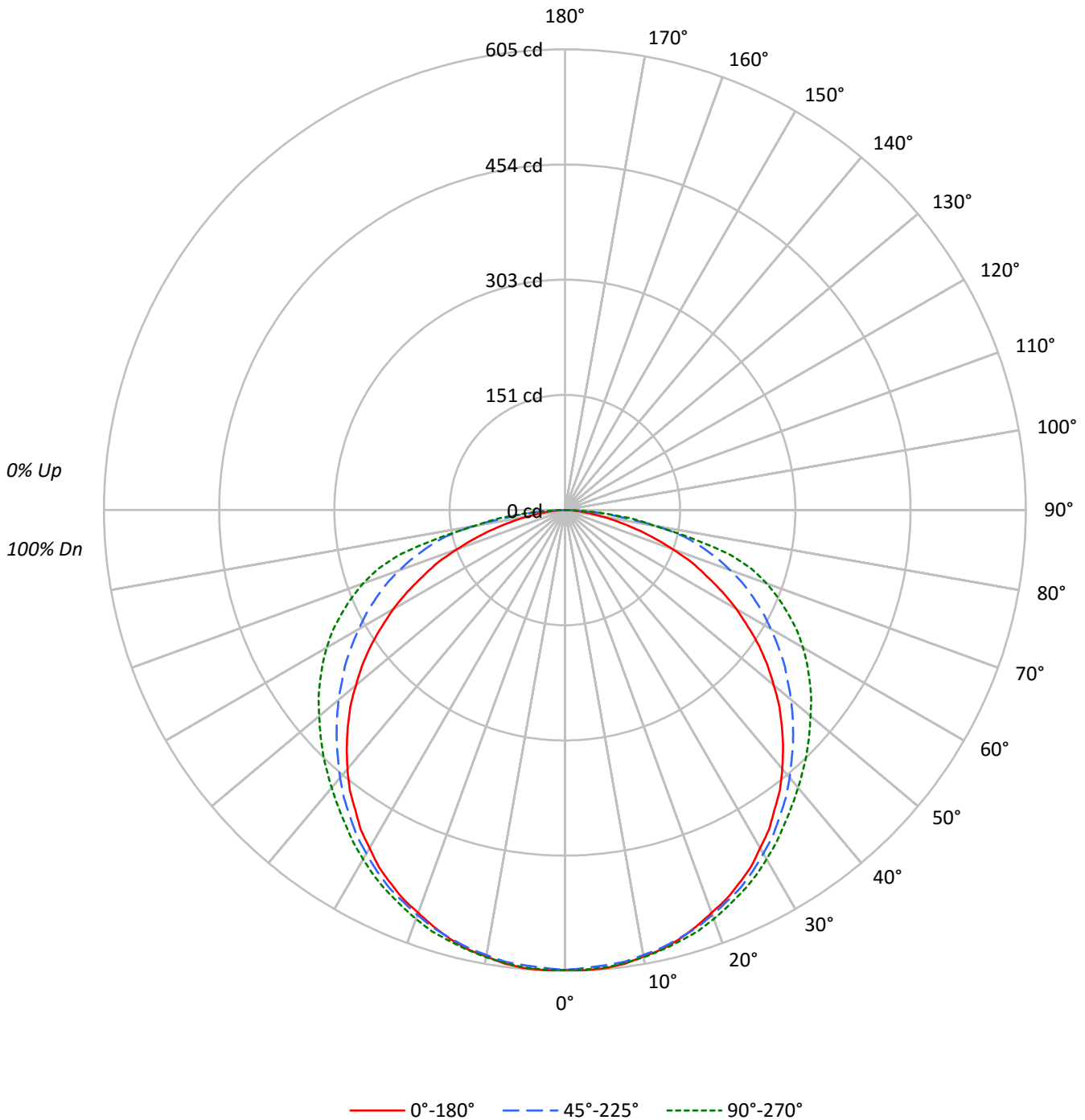
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	812	812	812
5°	816	810	814
10°	813	811	815
15°	812	811	816
20°	806	810	818
25°	803	811	820
30°	796	809	823
35°	788	807	826
40°	779	806	836
45°	766	806	855
50°	750	811	881
55°	730	824	920
60°	700	841	971
65°	655	870	1031
70°	596	910	1109
75°	505	961	1158
80°	398	967	937
85°	293	735	823



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.3	3.0
10°-20°	164.8	8.6
20°-30°	252.1	13.1
30°-40°	308.1	16.0
40°-50°	328.4	17.1
50°-60°	314.0	16.4
60°-70°	266.0	13.9
70°-80°	178.8	9.3
80°-90°	50.4	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°	474.2	24.7
0°-40°	782.3	40.7
0°-60°	1424.8	74.2
0°-90°	1920.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1920.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	604	604	604	604	604	
5°	604	603	600	603	603	57
15°	583	583	582	587	586	164
25°	541	543	547	551	552	249
35°	480	484	491	501	503	301
45°	403	410	424	442	450	311
55°	311	323	351	379	392	277
65°	206	227	273	310	324	204
75°	97	132	185	216	223	104
85°	19	39	48	51	53	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	603.8	603.8	603.8	603.8	603.8
2.5°	604.7	604.7	601.9	603.8	603.8
5°	603.8	602.8	600.0	602.8	602.8
7.5°	600.9	600.0	598.1	600.9	600.0
10°	595.2	595.2	593.3	596.2	596.2
12.5°	590.5	589.5	588.5	592.4	591.4
15°	582.8	582.8	581.9	586.6	585.7
17.5°	573.3	574.3	575.2	579.0	580.0
20°	562.8	564.7	565.7	571.4	571.4
22.5°	553.3	554.3	556.2	561.9	561.9
25°	540.9	542.8	546.6	551.4	552.4
27.5°	528.6	529.5	534.3	540.9	541.9
30°	512.4	515.2	520.9	528.6	529.5
32.5°	498.1	500.9	507.6	515.2	517.1
35°	480.0	483.8	491.4	500.9	502.8
37.5°	463.8	466.6	476.2	486.6	489.5
40°	443.8	449.5	459.0	471.4	476.2
42.5°	423.8	429.5	440.9	457.1	462.8
45°	402.8	409.5	423.8	441.9	449.5
47.5°	381.9	389.5	405.7	426.6	435.2
50°	358.1	367.6	387.6	411.4	420.9
52.5°	335.2	346.7	368.6	395.2	407.6
55°	311.4	322.8	351.4	379.0	392.4
57.5°	284.8	300.0	331.4	362.8	377.1
60°	260.0	274.3	312.4	346.7	360.9
62.5°	233.3	252.4	293.3	329.5	343.8
65°	205.7	226.7	273.3	309.5	323.8
67.5°	180.9	203.8	253.3	289.5	303.8
70°	151.4	180.0	231.4	267.6	281.9
72.5°	123.8	155.2	208.6	243.8	257.1
75°	97.1	132.4	184.8	216.2	222.8
77.5°	72.4	109.5	160.0	173.3	168.6
80°	51.4	87.6	124.8	118.1	120.9
82.5°	33.3	66.7	77.1	87.6	90.5
85°	19.0	39.0	47.6	51.4	53.3
87.5°	8.6	14.3	19.0	19.0	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)