

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: P309830

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CA125-W2A-U-5500K**

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: P309830
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-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 5500K 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: 1956.0 lumens
Efficiency: N/A
Efficacy: 90.1 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

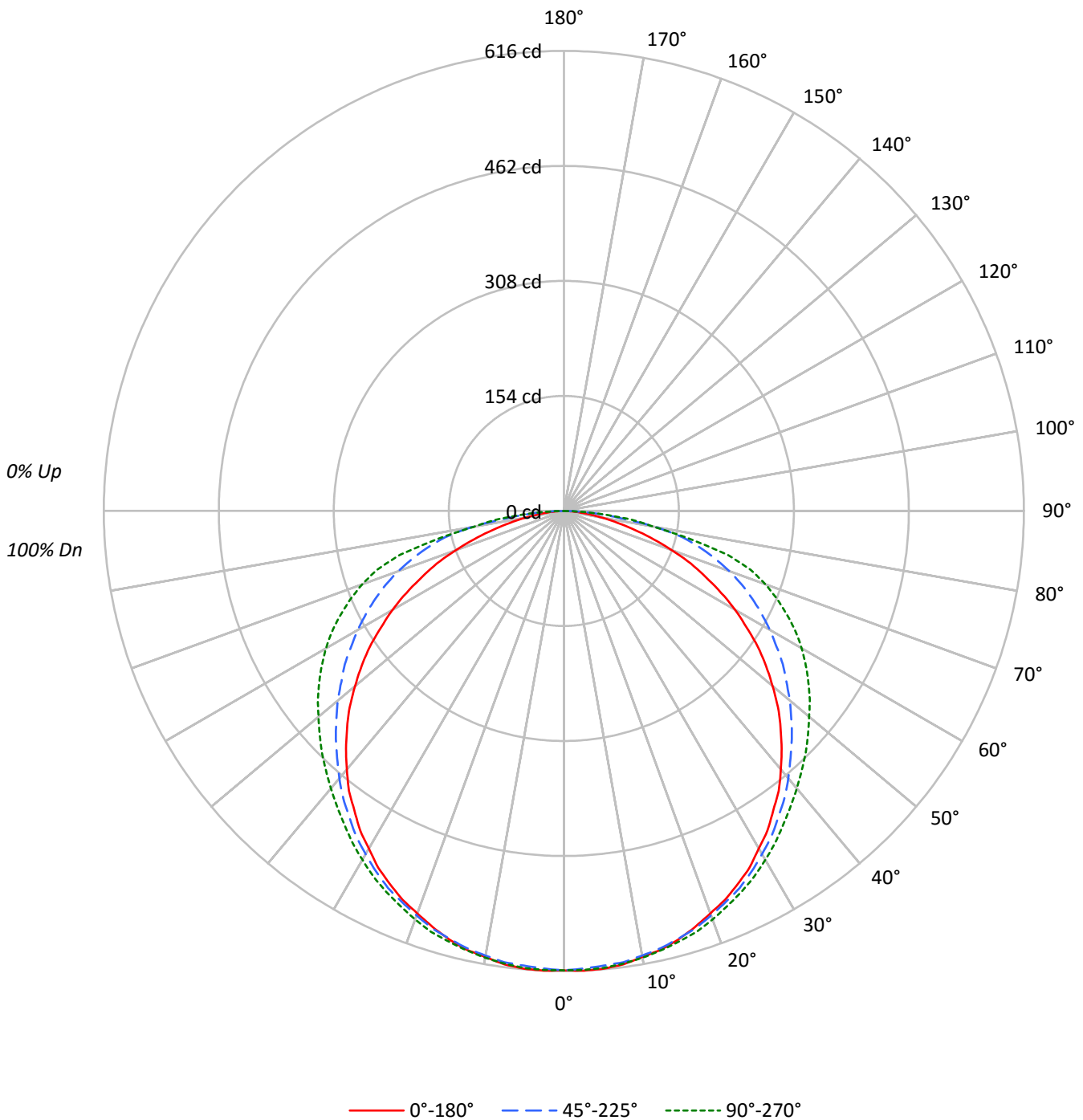
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	828	828	828
5°	831	826	829
10°	828	826	830
15°	827	826	831
20°	821	825	833
25°	818	827	835
30°	811	825	838
35°	803	822	841
40°	794	821	852
45°	781	821	871
50°	764	827	898
55°	744	840	938
60°	713	856	989
65°	667	886	1050
70°	607	928	1130
75°	515	978	1180
80°	406	985	955
85°	299	749	838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.3	3.0
10°-20°	167.9	8.6
20°-30°	256.8	13.1
30°-40°	313.9	16.0
40°-50°	334.6	17.1
50°-60°	319.9	16.4
60°-70°	271.0	13.9
70°-80°	182.1	9.3
80°-90°	51.4	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°	483.1	24.7
0°-40°	797.0	40.7
0°-60°	1451.5	74.2
0°-90°	1956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1956.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	615	614	611	614	614	58
15°	594	594	593	598	597	167
25°	551	553	557	562	563	254
35°	489	493	501	510	512	306
45°	410	417	432	450	458	317
55°	317	329	358	386	400	283
65°	210	231	278	315	330	208
75°	99	135	188	220	227	106
85°	19	40	48	52	54	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	615.1	615.1	615.1	615.1	615.1
2.5°	616.1	616.1	613.2	615.1	615.1
5°	615.1	614.1	611.2	614.1	614.1
7.5°	612.2	611.2	609.3	612.2	611.2
10°	606.4	606.4	604.4	607.3	607.3
12.5°	601.5	600.6	599.6	603.5	602.5
15°	593.8	593.8	592.8	597.6	596.7
17.5°	584.1	585.0	586.0	589.9	590.9
20°	573.4	575.3	576.3	582.1	582.1
22.5°	563.7	564.7	566.6	572.4	572.4
25°	551.1	553.0	556.9	561.7	562.7
27.5°	538.5	539.4	544.3	551.1	552.0
30°	522.0	524.9	530.7	538.5	539.4
32.5°	507.4	510.3	517.1	524.9	526.8
35°	489.0	492.9	500.6	510.3	512.3
37.5°	472.5	475.4	485.1	495.8	498.7
40°	452.1	457.9	467.6	480.2	485.1
42.5°	431.7	437.6	449.2	465.7	471.5
45°	410.4	417.2	431.7	450.2	457.9
47.5°	389.0	396.8	413.3	434.6	443.4
50°	364.8	374.5	394.9	419.1	428.8
52.5°	341.5	353.2	375.5	402.6	415.2
55°	317.3	328.9	358.0	386.1	399.7
57.5°	290.1	305.6	337.6	369.6	384.2
60°	264.9	279.4	318.2	353.2	367.7
62.5°	237.7	257.1	298.8	335.7	350.2
65°	209.6	230.9	278.4	315.3	329.9
67.5°	184.3	207.6	258.1	294.9	309.5
70°	154.3	183.4	235.8	272.6	287.2
72.5°	126.1	158.1	212.5	248.4	262.0
75°	99.0	134.9	188.2	220.2	227.0
77.5°	73.7	111.6	163.0	176.6	171.7
80°	52.4	89.3	127.1	120.3	123.2
82.5°	34.0	67.9	78.6	89.3	92.2
85°	19.4	39.8	48.5	52.4	54.3
87.5°	8.7	14.6	19.4	19.4	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)