

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: P313423

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-RDP-CA125-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: P313423
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-L83050-RDP-CA125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 1994.0 lumens
Efficiency: N/A
Efficacy: 90.2 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

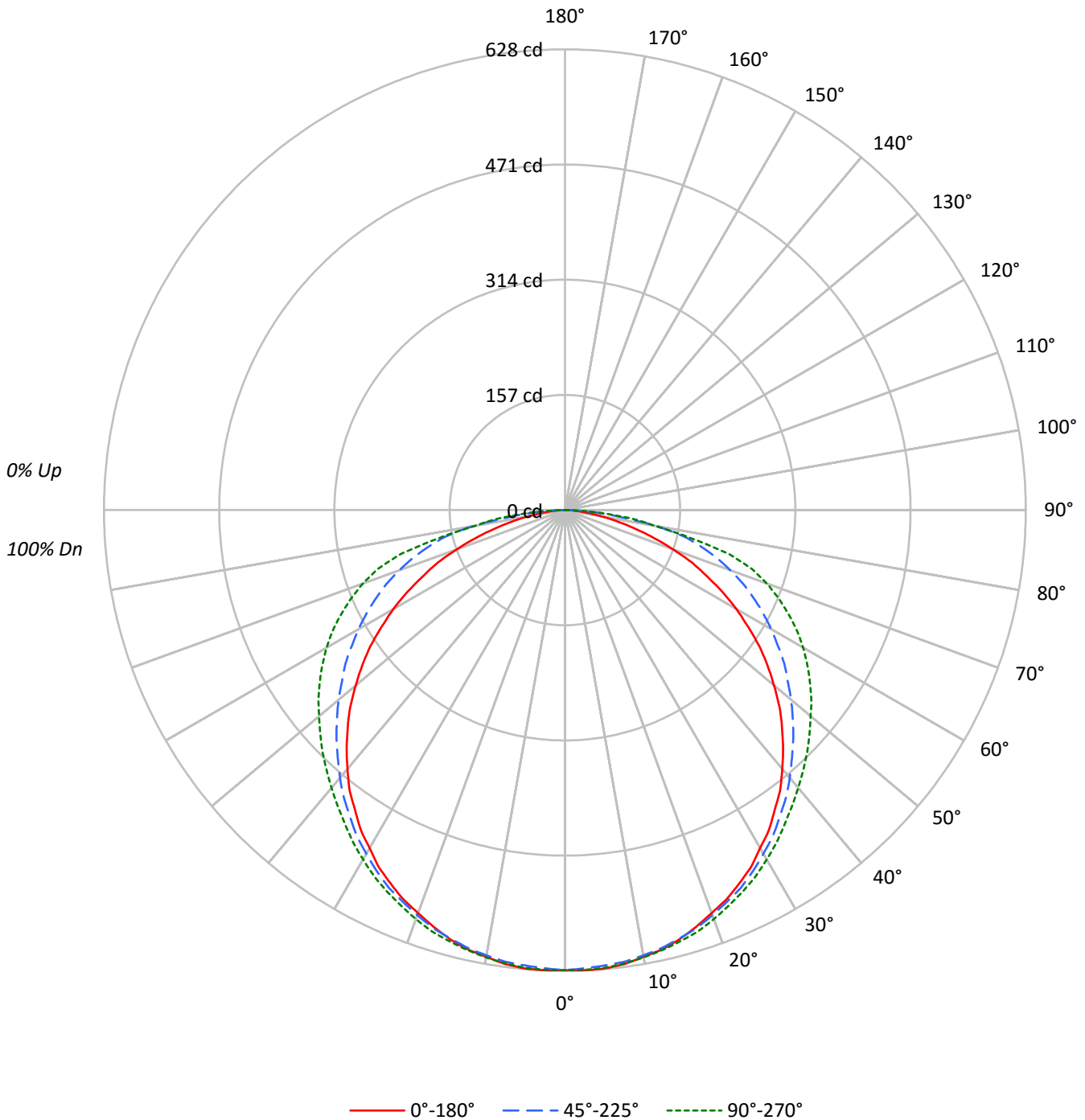
Input Watts (W): 22.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	844	844	844
5°	847	842	846
10°	845	842	846
15°	843	842	847
20°	837	841	850
25°	834	843	852
30°	827	841	854
35°	819	838	858
40°	810	837	869
45°	796	837	888
50°	778	843	915
55°	759	856	956
60°	727	873	1009
65°	680	904	1071
70°	619	945	1152
75°	525	998	1203
80°	414	1004	973
85°	306	764	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	3.0
10°-20°	171.2	8.6
20°-30°	261.8	13.1
30°-40°	320.0	16.0
40°-50°	341.1	17.1
50°-60°	326.1	16.4
60°-70°	276.3	13.9
70°-80°	185.7	9.3
80°-90°	52.4	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°	492.5	24.7
0°-40°	812.5	40.7
0°-60°	1479.7	74.2
0°-90°	1994.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1994.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	627	627	627	627	627	
5°	627	626	623	626	626	60
15°	605	605	604	609	608	171
25°	562	564	568	573	574	259
35°	498	502	510	520	522	312
45°	418	425	440	459	467	323
55°	323	335	365	394	408	288
65°	214	235	284	321	336	212
75°	101	138	192	224	231	108
85°	20	41	50	53	55	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	627.1	627.1	627.1	627.1	627.1
2.5°	628.0	628.0	625.1	627.1	627.1
5°	627.1	626.1	623.1	626.1	626.1
7.5°	624.1	623.1	621.1	624.1	623.1
10°	618.2	618.2	616.2	619.1	619.1
12.5°	613.2	612.2	611.2	615.2	614.2
15°	605.3	605.3	604.3	609.3	608.3
17.5°	595.4	596.4	597.4	601.3	602.3
20°	584.5	586.5	587.5	593.4	593.4
22.5°	574.6	575.6	577.6	583.5	583.5
25°	561.8	563.8	567.7	572.7	573.6
27.5°	548.9	549.9	554.9	561.8	562.8
30°	532.1	535.1	541.0	548.9	549.9
32.5°	517.3	520.2	527.2	535.1	537.1
35°	498.5	502.4	510.3	520.2	522.2
37.5°	481.7	484.6	494.5	505.4	508.4
40°	460.9	466.8	476.7	489.6	494.5
42.5°	440.1	446.1	457.9	474.7	480.7
45°	418.4	425.3	440.1	458.9	466.8
47.5°	396.6	404.5	421.3	443.1	452.0
50°	371.9	381.8	402.5	427.3	437.2
52.5°	348.1	360.0	382.8	410.5	423.3
55°	323.4	335.3	365.0	393.6	407.5
57.5°	295.7	311.5	344.2	376.8	391.7
60°	270.0	284.8	324.4	360.0	374.8
62.5°	242.3	262.1	304.6	342.2	357.0
65°	213.6	235.4	283.9	321.4	336.3
67.5°	187.9	211.7	263.1	300.7	315.5
70°	157.3	186.9	240.3	277.9	292.8
72.5°	128.6	161.2	216.6	253.2	267.0
75°	100.9	137.5	191.9	224.5	231.4
77.5°	75.2	113.7	166.2	180.0	175.1
80°	53.4	91.0	129.6	122.6	125.6
82.5°	34.6	69.2	80.1	91.0	94.0
85°	19.8	40.6	49.5	53.4	55.4
87.5°	8.9	14.8	19.8	19.8	18.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)