

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: P309151

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-HRP-CA125-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: P309151
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CA125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 2072.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

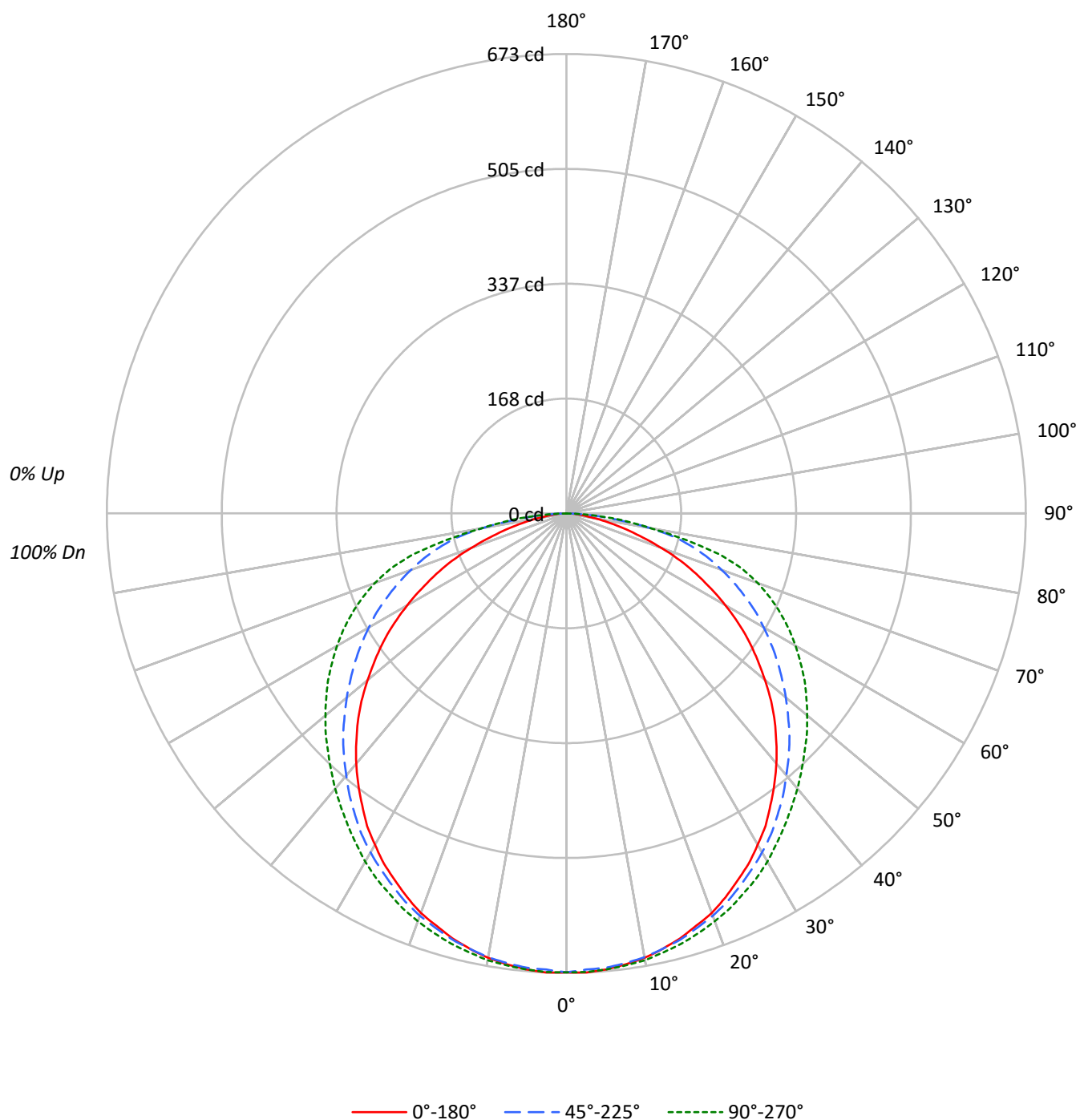
Input Watts (W): 21.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	905	905	905
5°	906	902	906
10°	903	902	908
15°	898	900	909
20°	892	898	910
25°	881	894	912
30°	871	891	915
35°	856	886	916
40°	841	881	925
45°	822	880	939
50°	795	879	964
55°	767	885	999
60°	724	899	1043
65°	668	920	1102
70°	583	952	1174
75°	474	1001	1213
80°	349	981	981
85°	267	722	817



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	3.1
10°-20°	182.9	8.8
20°-30°	278.4	13.4
30°-40°	338.1	16.3
40°-50°	357.1	17.2
50°-60°	337.0	16.3
60°-70°	280.2	13.5
70°-80°	184.3	8.9
80°-90°	50.2	2.4
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°	525.0	25.3
0°-40°	863.0	41.7
0°-60°	1557.2	75.2
0°-90°	2072.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2072.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	670	670	668	670	670	64
15°	644	645	646	652	652	182
25°	593	597	602	612	614	274
35°	521	527	540	553	558	326
45°	432	441	462	485	494	333
55°	327	341	377	413	426	291
65°	210	234	289	331	346	208
75°	91	133	193	228	233	98
85°	17	38	47	52	53	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	672.3	672.3	672.3	672.3	672.3
2.5°	673.1	672.3	668.8	672.3	672.3
5°	670.5	670.5	667.9	670.5	670.5
7.5°	666.2	666.2	664.5	667.9	667.9
10°	661.0	661.0	660.1	664.5	664.5
12.5°	653.2	654.0	653.2	658.4	658.4
15°	644.5	645.4	646.2	652.3	652.3
17.5°	633.2	635.0	636.7	643.6	644.5
20°	622.8	623.7	627.2	635.0	635.8
22.5°	608.9	611.5	615.9	623.7	626.3
25°	593.3	596.8	602.0	612.4	614.1
27.5°	578.6	581.2	588.1	599.4	602.9
30°	560.4	564.7	573.4	584.7	589.0
32.5°	543.0	547.4	557.8	569.9	573.4
35°	521.3	527.4	539.5	553.4	557.8
37.5°	500.5	506.6	521.3	536.9	542.1
40°	478.8	485.8	501.4	519.6	526.5
42.5°	455.4	464.9	482.3	502.2	510.1
45°	432.0	440.7	462.3	484.9	493.6
47.5°	406.8	417.2	440.7	467.5	478.0
50°	379.9	392.9	419.8	449.3	460.6
52.5°	353.0	367.8	398.2	431.1	443.3
55°	327.0	340.9	377.3	412.9	425.9
57.5°	298.4	315.7	355.6	393.8	406.8
60°	268.9	288.0	334.0	373.9	387.7
62.5°	239.4	261.1	313.1	353.0	367.8
65°	209.9	234.2	288.9	331.4	346.1
67.5°	181.3	208.2	266.3	308.8	323.6
70°	148.3	182.2	242.0	283.7	298.4
72.5°	118.0	157.0	218.6	257.6	270.6
75°	91.1	132.7	192.6	228.1	233.3
77.5°	66.8	108.4	165.7	177.8	178.7
80°	45.1	86.7	126.6	124.9	126.6
82.5°	29.5	65.1	79.8	89.3	90.2
85°	17.3	38.2	46.8	52.0	52.9
87.5°	8.7	13.0	16.5	17.3	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)