

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: P309203

Luminaire Tested: **24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-2700K**

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: P309203
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: 24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 2700K 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: 1886.0 lumens
Efficiency: N/A
Efficacy: 80.6 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

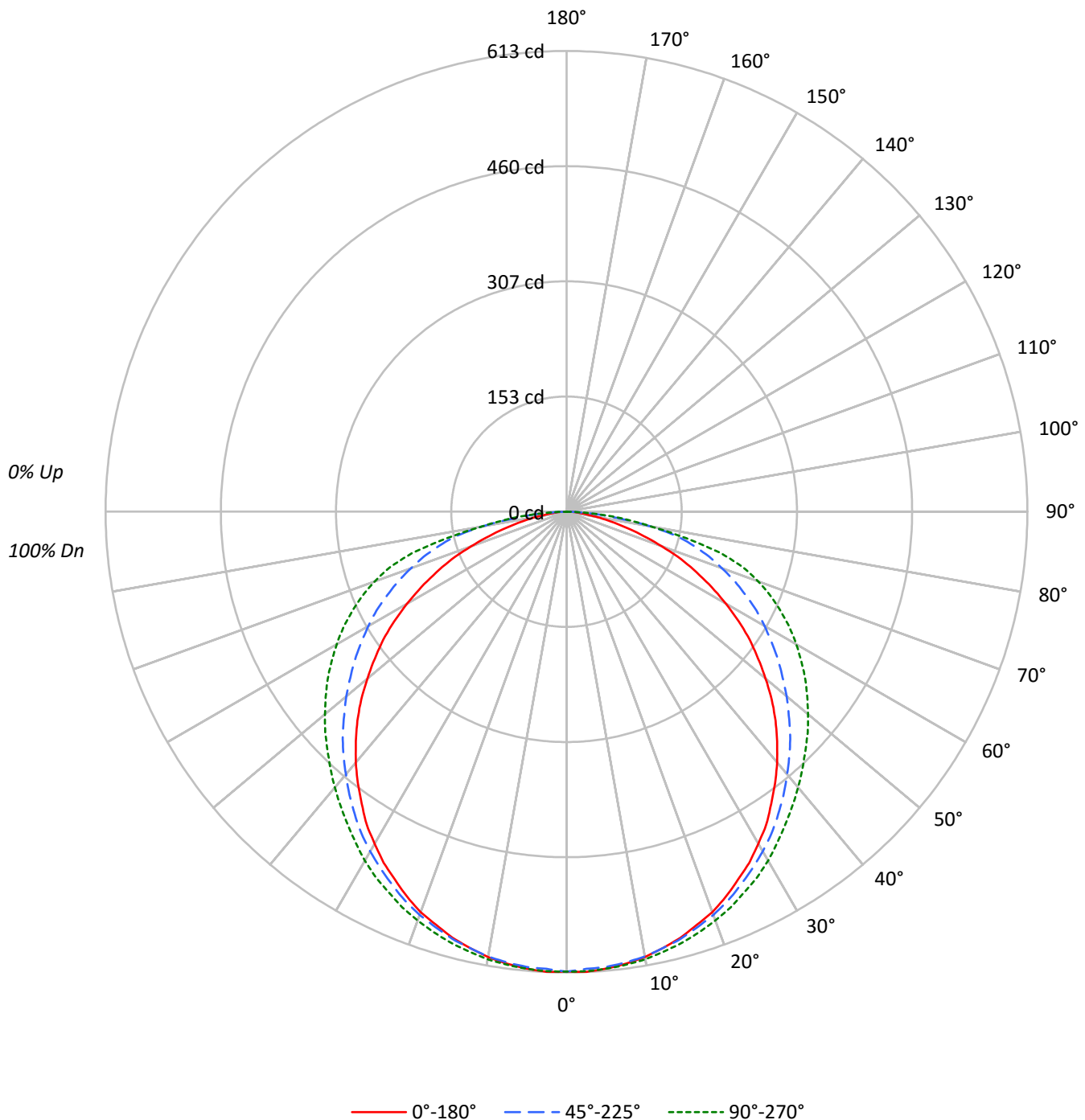
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	823	823	823
5°	824	821	824
10°	822	821	826
15°	817	819	827
20°	812	817	829
25°	802	814	830
30°	793	811	833
35°	779	807	834
40°	765	802	842
45°	748	801	855
50°	724	800	878
55°	698	806	909
60°	659	818	950
65°	608	837	1003
70°	531	867	1068
75°	431	911	1104
80°	318	893	893
85°	244	658	744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	3.1
10°-20°	166.5	8.8
20°-30°	253.4	13.4
30°-40°	307.7	16.3
40°-50°	325.1	17.2
50°-60°	306.8	16.3
60°-70°	255.1	13.5
70°-80°	167.8	8.9
80°-90°	45.7	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°	477.8	25.3
0°-40°	785.5	41.7
0°-60°	1417.4	75.2
0°-90°	1886.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1886.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	612	612	612	612	612	
5°	610	610	608	610	610	58
15°	587	587	588	594	594	165
25°	540	543	548	557	559	249
35°	474	480	491	504	508	297
45°	393	401	421	441	449	303
55°	298	310	344	376	388	265
65°	191	213	263	302	315	189
75°	83	121	175	208	212	89
85°	16	35	43	47	48	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	611.9	611.9	611.9	611.9	611.9
2.5°	612.7	611.9	608.8	611.9	611.9
5°	610.3	610.3	608.0	610.3	610.3
7.5°	606.4	606.4	604.8	608.0	608.0
10°	601.6	601.6	600.9	604.8	604.8
12.5°	594.5	595.3	594.5	599.3	599.3
15°	586.6	587.4	588.2	593.8	593.8
17.5°	576.4	578.0	579.5	585.9	586.6
20°	566.9	567.7	570.9	578.0	578.8
22.5°	554.3	556.6	560.6	567.7	570.1
25°	540.1	543.2	548.0	557.4	559.0
27.5°	526.6	529.0	535.3	545.6	548.7
30°	510.1	514.0	521.9	532.2	536.1
32.5°	494.3	498.2	507.7	518.7	521.9
35°	474.5	480.1	491.1	503.7	507.7
37.5°	455.6	461.1	474.5	488.7	493.5
40°	435.8	442.2	456.4	473.0	479.3
42.5°	414.5	423.2	439.0	457.2	464.3
45°	393.2	401.1	420.8	441.4	449.3
47.5°	370.3	379.8	401.1	425.6	435.1
50°	345.8	357.7	382.2	409.0	419.3
52.5°	321.4	334.8	362.4	392.4	403.5
55°	297.7	310.3	343.5	375.8	387.7
57.5°	271.6	287.4	323.7	358.5	370.3
60°	244.8	262.1	304.0	340.3	352.9
62.5°	217.9	237.7	285.0	321.4	334.8
65°	191.1	213.2	262.9	301.6	315.0
67.5°	165.0	189.5	242.4	281.1	294.5
70°	135.0	165.8	220.3	258.2	271.6
72.5°	107.4	142.9	199.0	234.5	246.3
75°	82.9	120.8	175.3	207.7	212.4
77.5°	60.8	98.7	150.8	161.9	162.7
80°	41.1	79.0	115.3	113.7	115.3
82.5°	26.8	59.2	72.6	81.3	82.1
85°	15.8	34.7	42.6	47.4	48.2
87.5°	7.9	11.8	15.0	15.8	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)