

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: P309833

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-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: P309833
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-CP125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 1692.0 lumens
Efficiency: N/A
Efficacy: 80.2 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

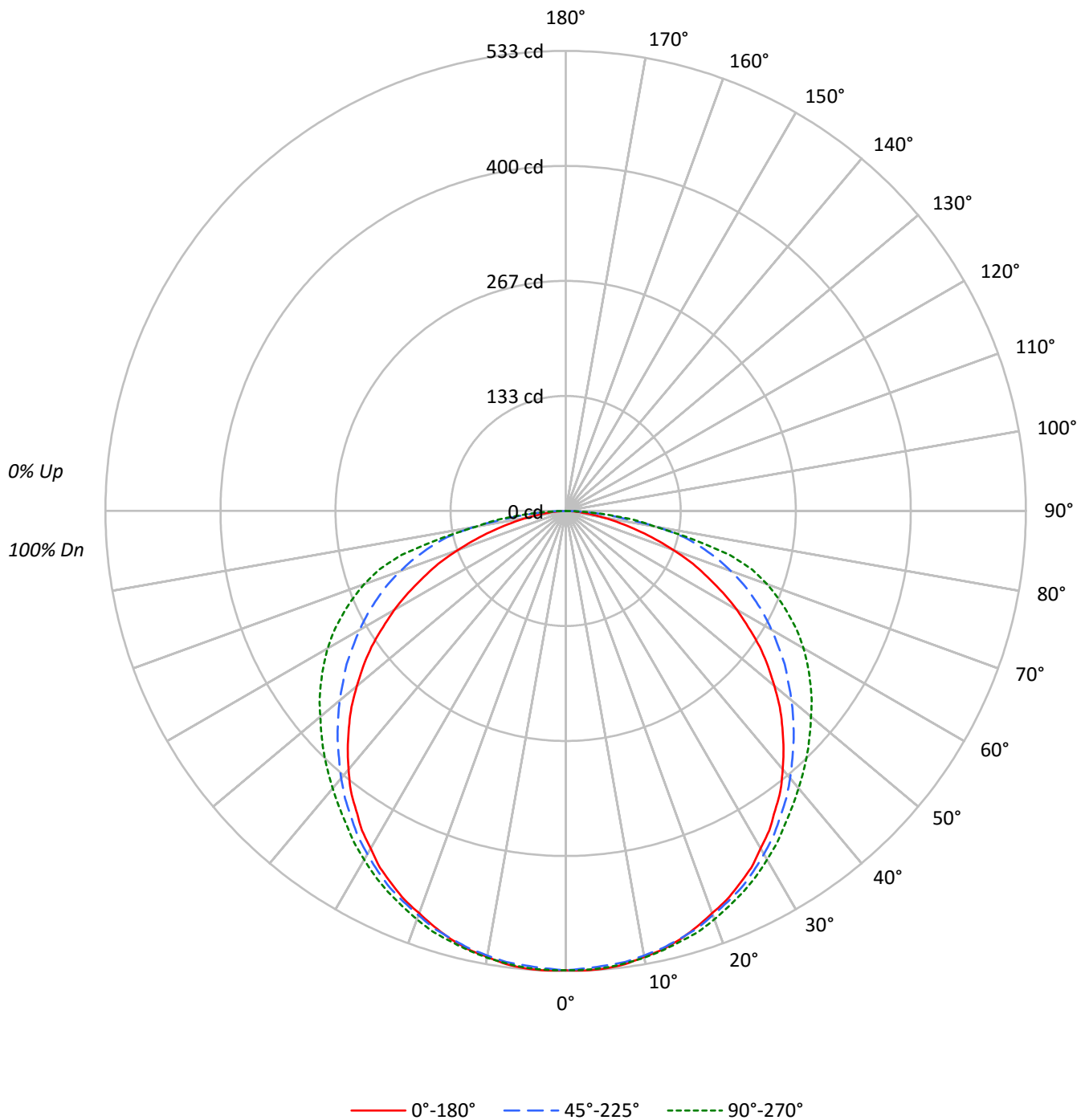
Input Watts (W): 21.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	68	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	716	716	716
5°	719	714	717
10°	717	714	718
15°	715	714	719
20°	710	714	721
25°	708	715	723
30°	701	713	725
35°	695	711	728
40°	687	710	737
45°	675	711	754
50°	661	715	776
55°	644	726	811
60°	617	741	856
65°	577	767	908
70°	525	802	977
75°	445	846	1021
80°	351	852	826
85°	259	648	726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.5	3.0
10°-20°	145.3	8.6
20°-30°	222.1	13.1
30°-40°	271.5	16.0
40°-50°	289.4	17.1
50°-60°	276.7	16.4
60°-70°	234.4	13.9
70°-80°	157.5	9.3
80°-90°	44.4	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°	417.9	24.7
0°-40°	689.4	40.7
0°-60°	1255.6	74.2
0°-90°	1692.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1692.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	532	532	532	532	532	
5°	532	531	529	531	531	51
15°	514	514	513	517	516	145
25°	477	478	482	486	487	220
35°	423	426	433	441	443	265
45°	355	361	374	389	396	274
55°	274	284	310	334	346	244
65°	181	200	241	273	285	180
75°	86	117	163	190	196	92
85°	17	34	42	45	47	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	532.1	532.1	532.1	532.1	532.1
2.5°	532.9	532.9	530.4	532.1	532.1
5°	532.1	531.2	528.7	531.2	531.2
7.5°	529.6	528.7	527.1	529.6	528.7
10°	524.5	524.5	522.9	525.4	525.4
12.5°	520.3	519.5	518.7	522.0	521.2
15°	513.6	513.6	512.8	517.0	516.1
17.5°	505.2	506.1	506.9	510.3	511.1
20°	496.0	497.7	498.5	503.6	503.6
22.5°	487.6	488.4	490.1	495.2	495.2
25°	476.7	478.4	481.7	485.9	486.8
27.5°	465.8	466.6	470.8	476.7	477.5
30°	451.5	454.0	459.1	465.8	466.6
32.5°	438.9	441.4	447.3	454.0	455.7
35°	423.0	426.3	433.1	441.4	443.1
37.5°	408.7	411.2	419.6	428.9	431.4
40°	391.1	396.1	404.5	415.4	419.6
42.5°	373.5	378.5	388.6	402.8	407.9
45°	355.0	360.9	373.5	389.4	396.1
47.5°	336.5	343.3	357.5	376.0	383.5
50°	315.6	324.0	341.6	362.6	370.9
52.5°	295.4	305.5	324.8	348.3	359.2
55°	274.4	284.5	309.7	334.0	345.8
57.5°	250.9	264.4	292.1	319.8	332.3
60°	229.1	241.7	275.3	305.5	318.1
62.5°	205.6	222.4	258.5	290.4	303.0
65°	181.3	199.7	240.9	272.8	285.3
67.5°	159.5	179.6	223.2	255.1	267.7
70°	133.4	158.6	203.9	235.8	248.4
72.5°	109.1	136.8	183.8	214.8	226.6
75°	85.6	116.7	162.8	190.5	196.4
77.5°	63.8	96.5	141.0	152.7	148.5
80°	45.3	77.2	109.9	104.1	106.6
82.5°	29.4	58.7	68.0	77.2	79.7
85°	16.8	34.4	42.0	45.3	47.0
87.5°	7.6	12.6	16.8	16.8	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)