

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: P313795

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-CA125-W2A-U-3000K**

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: P313795
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 3000K 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: 2643.0 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

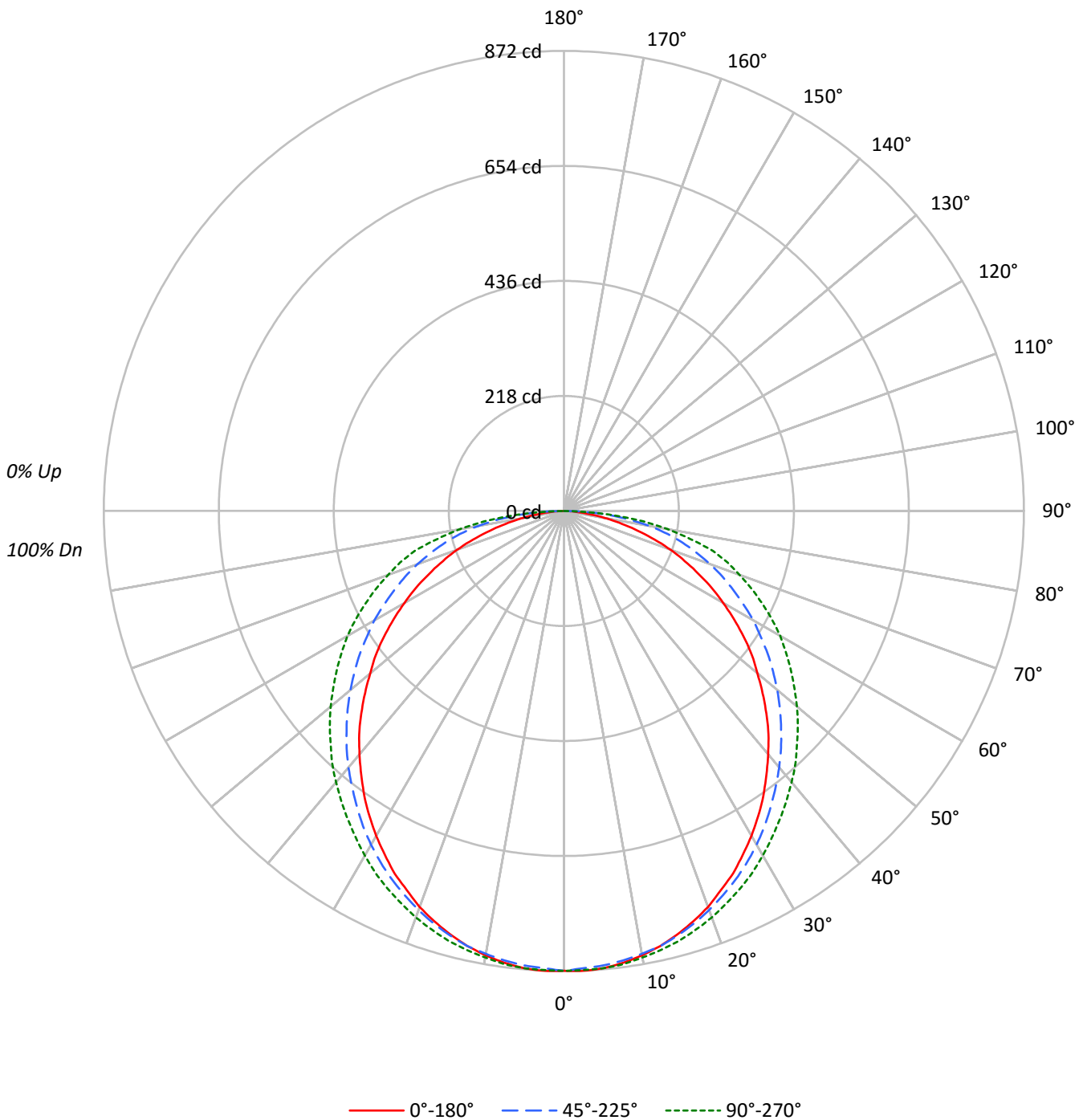
Input Watts (W): 21.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1173	1173	1173
5°	1175	1168	1175
10°	1168	1164	1174
15°	1158	1160	1175
20°	1144	1153	1174
25°	1126	1144	1173
30°	1105	1135	1172
35°	1083	1123	1172
40°	1058	1115	1180
45°	1033	1108	1190
50°	1002	1105	1208
55°	977	1107	1232
60°	939	1116	1274
65°	896	1128	1321
70°	849	1162	1394
75°	757	1213	1523
80°	645	1284	1556
85°	460	1272	1490



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.5	3.1
10°-20°	235.9	8.9
20°-30°	356.3	13.5
30°-40°	429.4	16.2
40°-50°	450.8	17.1
50°-60°	421.7	16.0
60°-70°	348.3	13.2
70°-80°	237.3	9.0
80°-90°	80.9	3.1
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°	674.6	25.5
0°-40°	1104.0	41.8
0°-60°	1976.5	74.8
0°-90°	2643.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2643.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	870	869	865	870	870	83
15°	831	832	833	842	844	234
25°	758	762	771	786	790	349
35°	659	666	684	707	714	412
45°	543	554	582	614	625	419
55°	416	433	472	510	525	372
65°	282	305	354	399	415	279
75°	146	179	233	277	293	155
85°	30	59	82	93	96	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	871.6	871.6	871.6	871.6	871.6
2.5°	872.5	871.6	867.3	871.6	870.8
5°	869.9	869.0	864.6	869.9	869.9
7.5°	863.7	863.7	859.4	865.5	866.4
10°	855.0	855.0	852.3	859.4	859.4
12.5°	844.5	844.5	844.5	851.5	852.3
15°	831.3	832.2	833.1	841.8	843.6
17.5°	815.5	817.3	819.9	830.4	832.2
20°	798.9	800.6	805.0	817.3	819.9
22.5°	777.8	782.2	788.3	802.4	805.0
25°	758.5	762.0	770.8	785.7	790.1
27.5°	734.8	740.1	751.5	767.3	773.4
30°	711.2	716.4	730.5	748.9	754.1
32.5°	685.7	693.6	708.5	727.8	734.0
35°	659.4	666.4	684.0	706.8	713.8
37.5°	630.5	640.1	659.4	684.0	692.8
40°	602.4	613.0	634.9	661.2	671.7
42.5°	574.4	584.9	609.4	639.3	649.8
45°	542.8	554.2	582.3	613.8	625.2
47.5°	511.2	525.3	556.0	589.3	601.6
50°	478.8	494.6	527.9	563.0	577.0
52.5°	449.8	464.8	499.8	537.5	550.7
55°	416.5	433.2	471.8	510.4	525.3
57.5°	382.3	400.7	442.0	484.0	499.0
60°	349.0	369.2	414.8	456.9	473.5
62.5°	316.6	336.7	384.1	427.9	444.6
65°	281.5	305.2	354.3	399.0	414.8
67.5°	248.2	273.6	325.3	369.2	385.0
70°	215.7	240.3	295.5	338.5	354.3
72.5°	180.6	208.7	263.9	308.7	325.3
75°	145.6	178.9	233.3	277.1	292.9
77.5°	113.1	147.3	201.7	237.6	245.5
80°	83.3	118.4	165.7	191.2	200.8
82.5°	53.5	88.6	126.3	144.7	152.6
85°	29.8	58.8	82.4	93.0	96.5
87.5°	12.3	25.4	33.3	37.7	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)