

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: P310552

Luminaire Tested: **24FCZ2-30-UNV-L82765-CA125-W2A-U-6500K**

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: P310552
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: 24FCZ2-30-UNV-L82765-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 6500K 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: 2888.0 lumens
Efficiency: N/A
Efficacy: 118.4 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

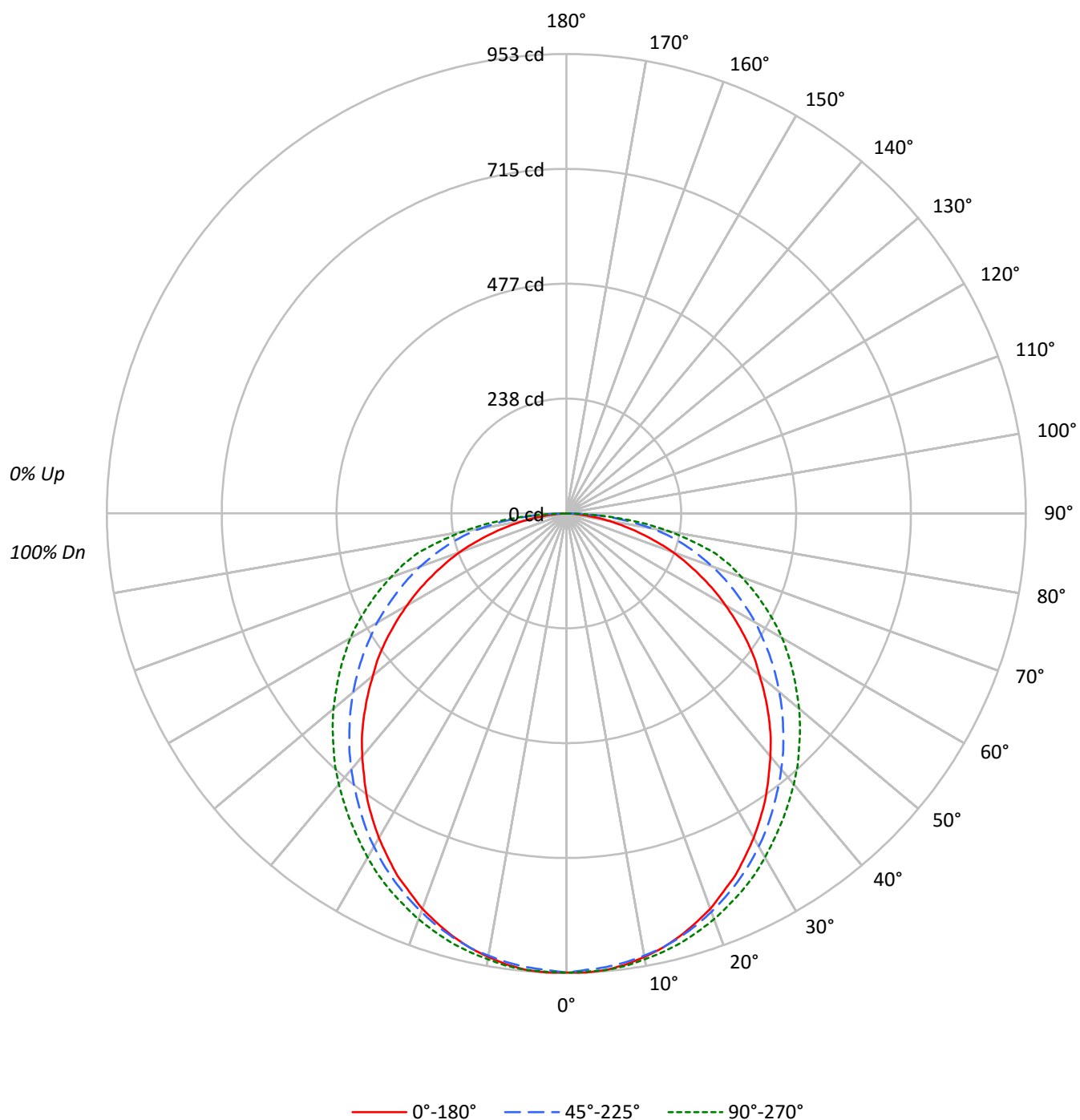
Input Watts (W): 24.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	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	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1281	1281	1281
5°	1284	1276	1284
10°	1276	1273	1283
15°	1265	1268	1284
20°	1250	1259	1283
25°	1230	1250	1282
30°	1207	1240	1280
35°	1184	1228	1281
40°	1156	1218	1289
45°	1129	1211	1300
50°	1095	1207	1320
55°	1068	1209	1346
60°	1026	1220	1392
65°	979	1232	1443
70°	927	1270	1523
75°	827	1325	1664
80°	705	1403	1700
85°	503	1391	1627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	3.1
10°-20°	257.7	8.9
20°-30°	389.3	13.5
30°-40°	469.2	16.2
40°-50°	492.6	17.1
50°-60°	460.8	16.0
60°-70°	380.5	13.2
70°-80°	259.3	9.0
80°-90°	88.4	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°	737.2	25.5
0°-40°	1206.3	41.8
0°-60°	2159.7	74.8
0°-90°	2888.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2888.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	950	950	945	950	950	90
15°	908	909	910	920	922	256
25°	829	833	842	858	863	381
35°	721	728	747	772	780	450
45°	593	606	636	671	683	457
55°	455	473	516	558	574	406
65°	308	333	387	436	453	305
75°	159	196	255	303	320	170
85°	33	64	90	102	105	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	952.4	952.4	952.4	952.4	952.4
2.5°	953.4	952.4	947.6	952.4	951.5
5°	950.5	949.6	944.8	950.5	950.5
7.5°	943.8	943.8	939.0	945.7	946.7
10°	934.2	934.2	931.4	939.0	939.0
12.5°	922.7	922.7	922.7	930.4	931.4
15°	908.4	909.3	910.3	919.9	921.8
17.5°	891.1	893.0	895.9	907.4	909.3
20°	872.9	874.8	879.6	893.0	895.9
22.5°	849.9	854.7	861.4	876.7	879.6
25°	828.8	832.7	842.2	858.5	863.3
27.5°	803.0	808.7	821.2	838.4	845.1
30°	777.1	782.8	798.2	818.3	824.0
32.5°	749.3	757.9	774.2	795.3	802.0
35°	720.6	728.2	747.4	772.3	780.0
37.5°	688.9	699.5	720.6	747.4	757.0
40°	658.3	669.8	693.7	722.5	734.0
42.5°	627.6	639.1	665.9	698.5	710.0
45°	593.1	605.6	636.2	670.7	683.2
47.5°	558.6	574.0	607.5	643.9	657.3
50°	523.2	540.4	576.8	615.2	630.5
52.5°	491.5	507.8	546.2	587.4	601.7
55°	455.1	473.3	515.5	557.7	574.0
57.5°	417.8	437.9	482.9	528.9	545.2
60°	381.4	403.4	453.2	499.2	517.4
62.5°	345.9	367.9	419.7	467.6	485.8
65°	307.6	333.4	387.1	436.0	453.2
67.5°	271.2	299.0	355.5	403.4	420.6
70°	235.7	262.5	322.9	369.9	387.1
72.5°	197.4	228.0	288.4	337.3	355.5
75°	159.1	195.5	254.9	302.8	320.0
77.5°	123.6	161.0	220.4	259.7	268.3
80°	91.0	129.4	181.1	208.9	219.4
82.5°	58.4	96.8	138.0	158.1	166.7
85°	32.6	64.2	90.1	101.6	105.4
87.5°	13.4	27.8	36.4	41.2	41.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)