

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: P311182

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-S-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: P311182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
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-S-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 3072.0 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

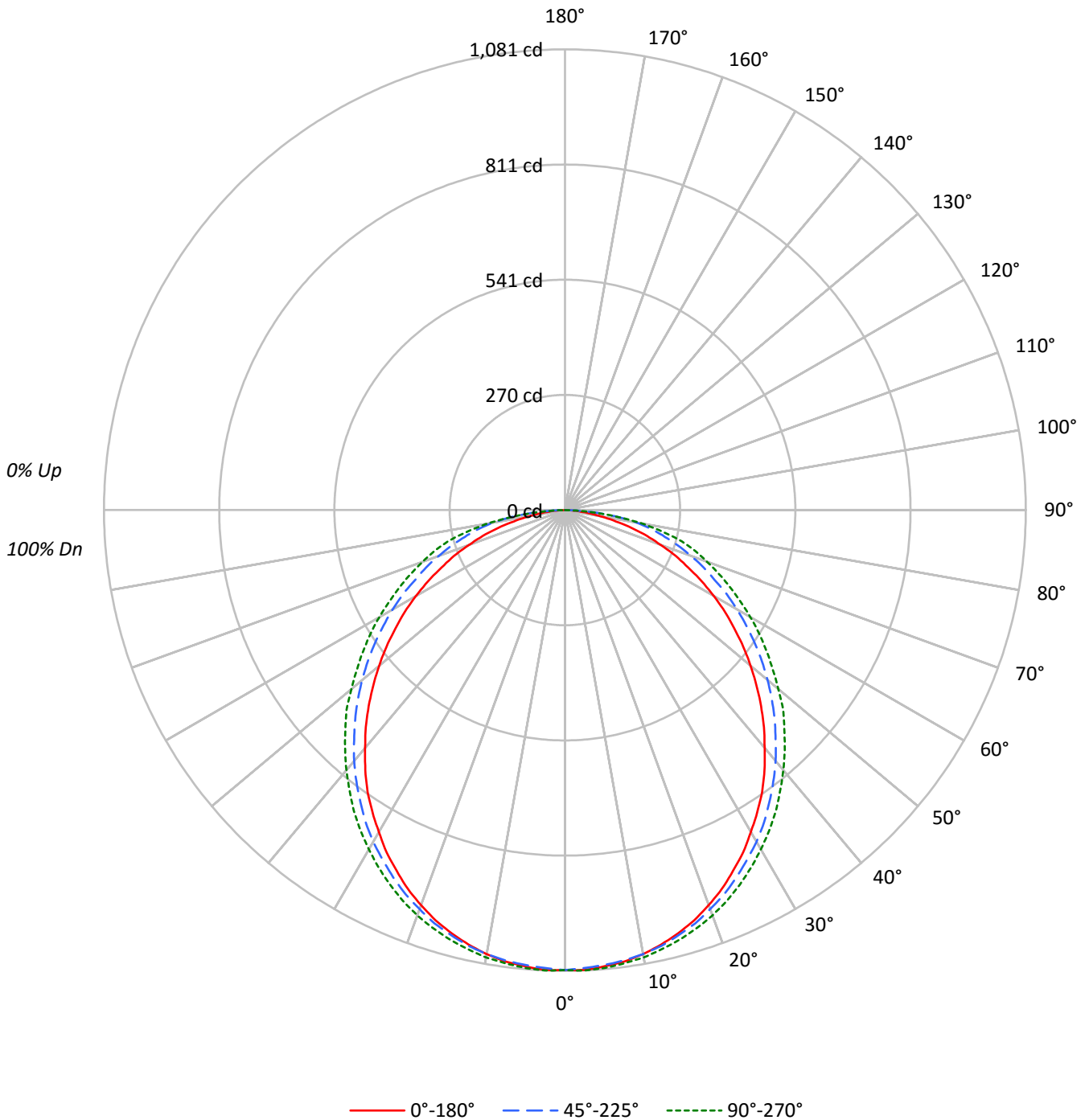
Input Watts (W): 22
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 24FC22-30HE-UNV-L82765-S-CA125-W2A-U-6500K

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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1452	1452	1452
5°	1451	1447	1456
10°	1445	1445	1456
15°	1431	1438	1453
20°	1413	1427	1449
25°	1386	1412	1440
30°	1355	1396	1428
35°	1326	1373	1417
40°	1280	1351	1400
45°	1238	1324	1385
50°	1191	1299	1369
55°	1138	1275	1355
60°	1084	1255	1352
65°	1016	1233	1361
70°	941	1240	1397
75°	842	1263	1476
80°	680	1338	1444
85°	513	1175	1145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.2	3.3
10°-20°	291.9	9.5
20°-30°	438.8	14.3
30°-40°	522.7	17.0
40°-50°	535.0	17.4
50°-60°	481.6	15.7
60°-70°	378.3	12.3
70°-80°	245.5	8.0
80°-90°	75.9	2.5
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°	833.0	27.1
0°-40°	1355.7	44.1
0°-60°	2372.3	77.2
0°-90°	3072.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3072.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1074	1076	1071	1077	1078	102
15°	1028	1030	1032	1041	1043	290
25°	934	942	951	967	970	430
35°	807	817	836	857	863	503
45°	651	666	696	722	728	502
55°	485	506	544	572	578	435
65°	319	344	387	420	427	318
75°	162	193	243	276	284	171
85°	33	62	76	74	74	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1079.2	1079.2	1079.2	1079.2	1079.2
2.5°	1080.2	1080.2	1075.3	1080.2	1081.2
5°	1074.3	1076.3	1071.4	1077.3	1078.2
7.5°	1068.5	1068.5	1065.6	1071.4	1072.4
10°	1057.7	1058.7	1057.7	1064.6	1065.6
12.5°	1044.1	1046.0	1047.0	1053.8	1054.8
15°	1027.5	1030.4	1032.4	1041.2	1043.1
17.5°	1009.0	1011.9	1016.8	1026.5	1028.5
20°	986.5	990.4	996.3	1009.0	1011.9
22.5°	962.1	966.0	975.8	987.5	992.4
25°	933.8	941.6	951.4	967.0	969.9
27.5°	905.5	912.4	925.0	941.6	945.5
30°	872.3	883.1	898.7	915.3	919.2
32.5°	840.1	850.9	869.4	887.0	891.9
35°	807.0	816.7	836.2	856.7	862.6
37.5°	768.9	781.6	803.1	823.6	829.4
40°	728.9	744.5	768.9	790.4	797.2
42.5°	690.9	707.4	731.8	755.3	763.1
45°	650.8	666.5	695.7	722.1	727.9
47.5°	609.9	627.4	658.7	685.0	694.8
50°	568.9	587.4	620.6	647.9	653.8
52.5°	527.9	547.4	582.5	611.8	614.7
55°	485.0	506.4	543.5	571.8	577.7
57.5°	445.9	464.5	504.5	533.8	540.6
60°	403.0	423.5	466.4	493.7	502.5
62.5°	362.0	383.5	428.4	455.7	463.5
65°	319.1	343.5	387.4	419.6	427.4
67.5°	282.0	305.4	352.3	383.5	391.3
70°	239.1	265.4	315.2	347.4	355.2
72.5°	202.0	229.3	279.1	310.3	322.0
75°	162.0	193.2	243.0	276.1	284.0
77.5°	122.9	159.1	209.8	235.2	235.2
80°	87.8	125.9	172.7	184.4	186.4
82.5°	57.6	94.7	127.8	126.9	126.9
85°	33.2	61.5	76.1	74.2	74.2
87.5°	12.7	25.4	27.3	27.3	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)