

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: P311175

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-S-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: P311175
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-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH 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

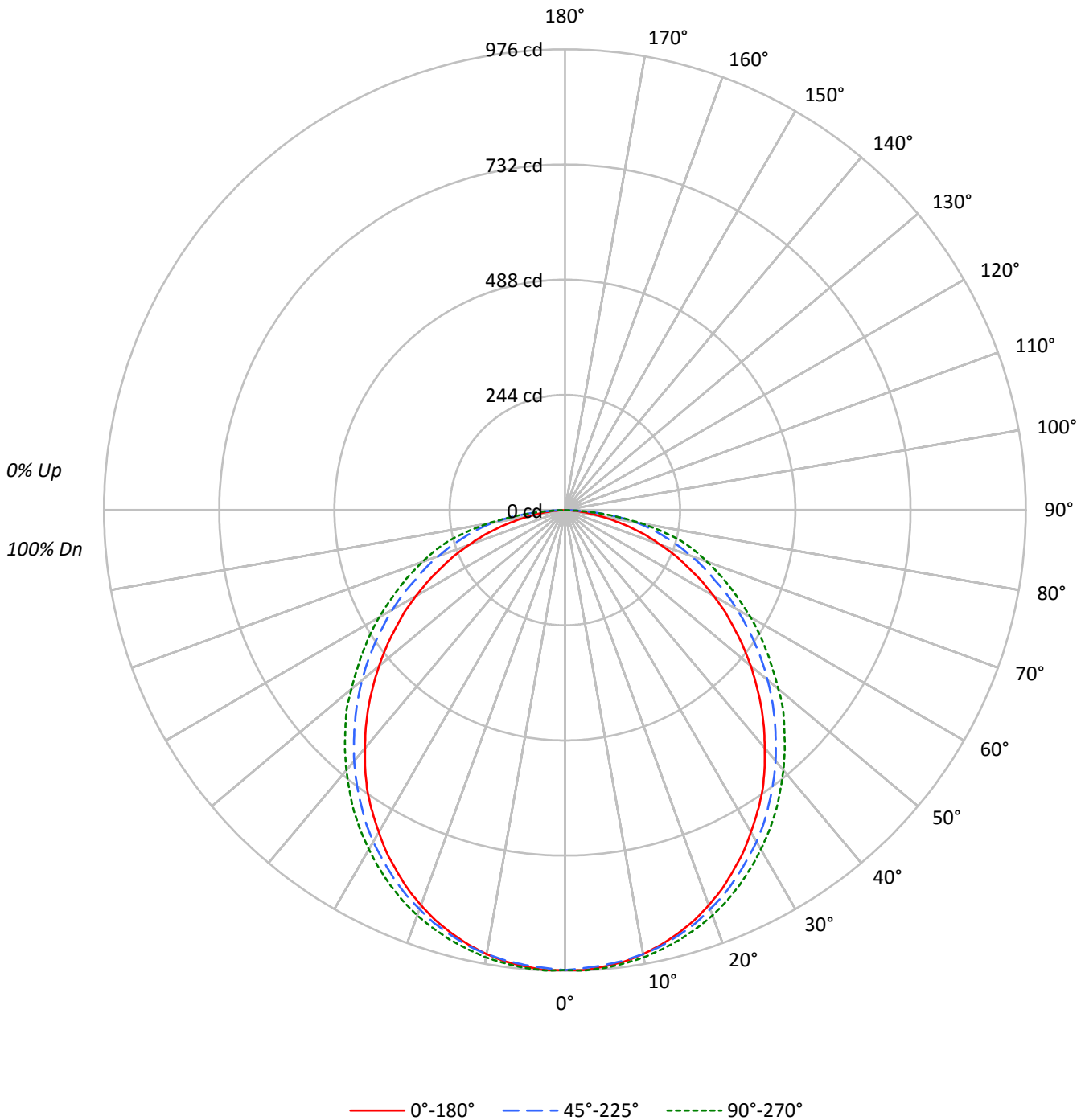
Lumens per Lamp: N/A
Luminaire Lumens: 2774.0 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21
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-3000K

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°	1311	1311	1311
5°	1310	1307	1315
10°	1305	1305	1315
15°	1292	1299	1312
20°	1275	1288	1308
25°	1252	1275	1300
30°	1224	1261	1290
35°	1197	1240	1279
40°	1156	1219	1264
45°	1118	1195	1251
50°	1075	1173	1236
55°	1027	1151	1224
60°	979	1133	1221
65°	917	1114	1229
70°	849	1120	1262
75°	761	1141	1333
80°	614	1209	1304
85°	463	1061	1034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	3.3
10°-20°	263.6	9.5
20°-30°	396.3	14.3
30°-40°	472.0	17.0
40°-50°	483.1	17.4
50°-60°	434.9	15.7
60°-70°	341.6	12.3
70°-80°	221.7	8.0
80°-90°	68.6	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°	752.1	27.1
0°-40°	1224.2	44.1
0°-60°	2142.2	77.2
0°-90°	2774.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2774.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	970	972	968	973	974	92
15°	928	930	932	940	942	262
25°	843	850	859	873	876	388
35°	729	738	755	774	779	455
45°	588	602	628	652	657	453
55°	438	457	491	516	522	393
65°	288	310	350	379	386	287
75°	146	174	219	249	256	155
85°	30	56	69	67	67	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	974.5	974.5	974.5	974.5	974.5
2.5°	975.4	975.4	971.0	975.4	976.3
5°	970.1	971.9	967.5	972.8	973.6
7.5°	964.8	964.8	962.2	967.5	968.4
10°	955.1	956.0	955.1	961.3	962.2
12.5°	942.8	944.6	945.4	951.6	952.5
15°	927.8	930.5	932.2	940.2	941.9
17.5°	911.1	913.7	918.1	926.9	928.7
20°	890.8	894.3	899.6	911.1	913.7
22.5°	868.8	872.3	881.1	891.7	896.1
25°	843.2	850.3	859.1	873.2	875.8
27.5°	817.7	823.9	835.3	850.3	853.8
30°	787.7	797.4	811.5	826.5	830.0
32.5°	758.6	768.3	785.1	800.9	805.3
35°	728.7	737.5	755.1	773.6	778.9
37.5°	694.3	705.8	725.2	743.7	749.0
40°	658.2	672.3	694.3	713.7	719.9
42.5°	623.8	638.8	660.8	682.0	689.0
45°	587.7	601.8	628.2	652.0	657.3
47.5°	550.7	566.6	594.8	618.5	627.4
50°	513.7	530.4	560.4	585.1	590.4
52.5°	476.7	494.3	526.0	552.5	555.1
55°	437.9	457.3	490.8	516.3	521.6
57.5°	402.7	419.4	455.5	482.0	488.1
60°	363.9	382.4	421.2	445.8	453.8
62.5°	326.9	346.3	386.8	411.5	418.5
65°	288.1	310.2	349.8	378.9	385.9
67.5°	254.6	275.8	318.1	346.3	353.3
70°	215.9	239.7	284.6	313.7	320.7
72.5°	182.4	207.1	252.0	280.2	290.8
75°	146.3	174.5	219.4	249.4	256.4
77.5°	111.0	143.6	189.4	212.4	212.4
80°	79.3	113.7	156.0	166.5	168.3
82.5°	52.0	85.5	115.4	114.5	114.5
85°	30.0	55.5	68.7	67.0	67.0
87.5°	11.5	22.9	24.7	24.7	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)