

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: P310499

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CA125-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: P310499
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-L82765-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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: 2566.0 lumens
Efficiency: N/A
Efficacy: 121.6 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

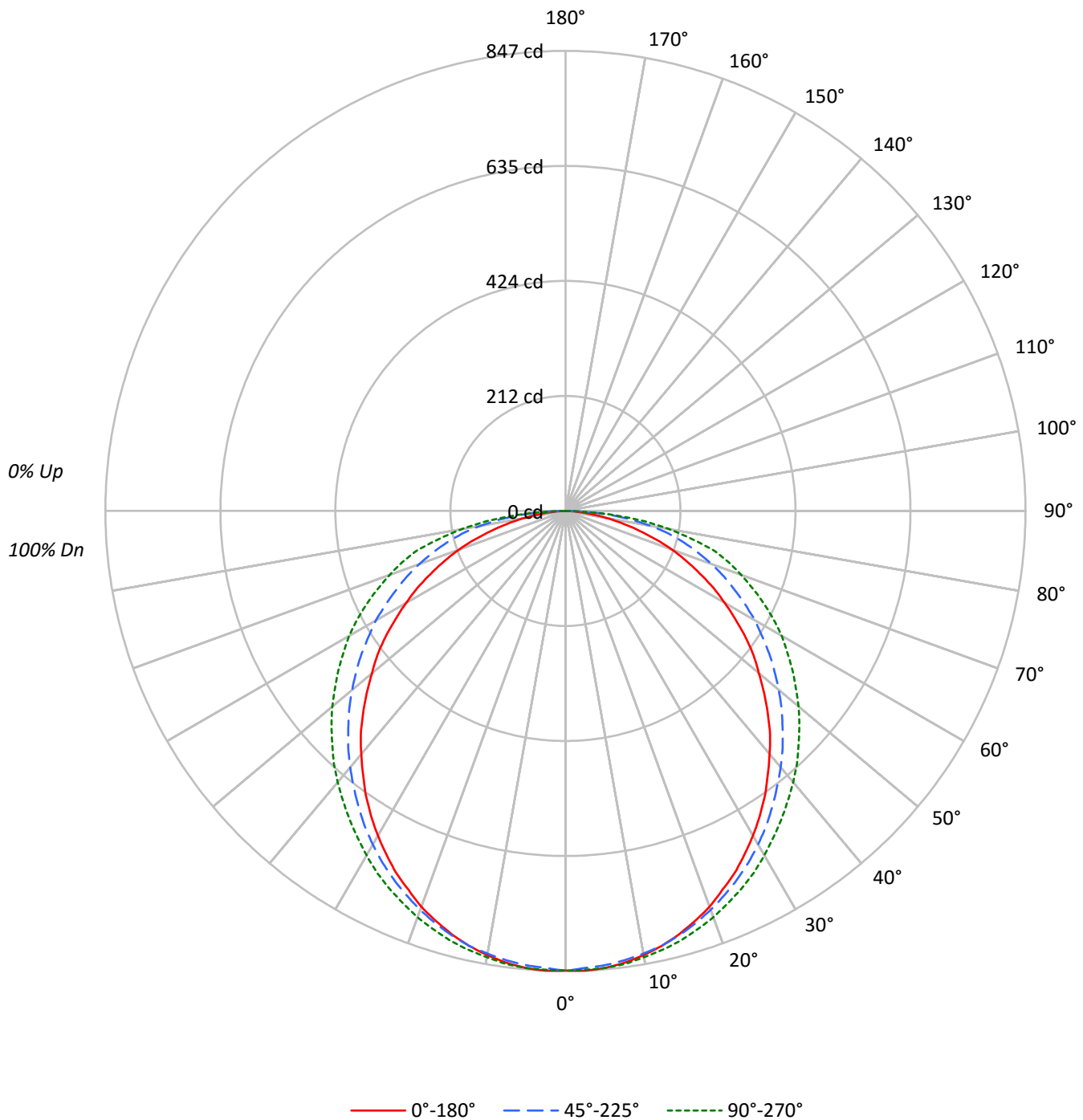
Input Watts (W): 21.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310499

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P310499

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-2700K

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°	1139	1139	1139
5°	1141	1134	1141
10°	1134	1131	1140
15°	1124	1127	1141
20°	1111	1119	1140
25°	1093	1111	1139
30°	1073	1102	1138
35°	1052	1091	1138
40°	1027	1083	1145
45°	1003	1076	1155
50°	973	1073	1173
55°	949	1074	1196
60°	912	1084	1237
65°	870	1095	1282
70°	824	1129	1353
75°	735	1177	1478
80°	627	1247	1511
85°	446	1235	1445



TEST NUMBER: P310499

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	3.1
10°-20°	229.0	8.9
20°-30°	345.9	13.5
30°-40°	416.9	16.2
40°-50°	437.6	17.1
50°-60°	409.4	16.0
60°-70°	338.1	13.2
70°-80°	230.4	9.0
80°-90°	78.6	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°	655.0	25.5
0°-40°	1071.8	41.8
0°-60°	1918.9	74.8
0°-90°	2566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	844	844	839	844	844	80
15°	807	808	809	817	819	228
25°	736	740	748	763	767	339
35°	640	647	664	686	693	400
45°	527	538	565	596	607	406
55°	404	421	458	496	510	361
65°	273	296	344	387	403	271
75°	141	174	226	269	284	151
85°	29	57	80	90	94	36
90°	0	0	0	0	0	



TEST NUMBER: P310499

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-CA125-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	846.2	846.2	846.2	846.2	846.2
2.5°	847.1	846.2	842.0	846.2	845.4
5°	844.5	843.7	839.4	844.5	844.5
7.5°	838.6	838.6	834.3	840.3	841.1
10°	830.1	830.1	827.5	834.3	834.3
12.5°	819.9	819.9	819.9	826.7	827.5
15°	807.1	807.9	808.8	817.3	819.0
17.5°	791.8	793.5	796.0	806.2	807.9
20°	775.6	777.3	781.5	793.5	796.0
22.5°	755.1	759.4	765.4	779.0	781.5
25°	736.4	739.8	748.3	762.8	767.1
27.5°	713.4	718.5	729.6	744.9	750.9
30°	690.4	695.6	709.2	727.1	732.2
32.5°	665.8	673.4	687.9	706.6	712.6
35°	640.2	647.0	664.1	686.2	693.0
37.5°	612.1	621.5	640.2	664.1	672.6
40°	584.9	595.1	616.4	641.9	652.1
42.5°	557.6	567.9	591.7	620.6	630.9
45°	527.0	538.1	565.3	595.9	607.0
47.5°	496.3	510.0	539.8	572.1	584.0
50°	464.8	480.2	512.5	546.6	560.2
52.5°	436.7	451.2	485.3	521.9	534.6
55°	404.4	420.6	458.0	495.5	510.0
57.5°	371.2	389.1	429.1	469.9	484.4
60°	338.8	358.4	402.7	443.6	459.7
62.5°	307.3	326.9	372.9	415.5	431.6
65°	273.3	296.3	343.9	387.4	402.7
67.5°	240.9	265.6	315.9	358.4	373.7
70°	209.4	233.3	286.9	328.6	343.9
72.5°	175.4	202.6	256.3	299.7	315.9
75°	141.3	173.7	226.5	269.0	284.4
77.5°	109.8	143.0	195.8	230.7	238.4
80°	80.9	114.9	160.9	185.6	195.0
82.5°	51.9	86.0	122.6	140.5	148.1
85°	28.9	57.0	80.0	90.2	93.6
87.5°	11.9	24.7	32.4	36.6	36.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)