

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: P313825

Luminaire Tested: **24FCZ2-30-UNV-L83050-CP125-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: P313825
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-L83050-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 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: 2560.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

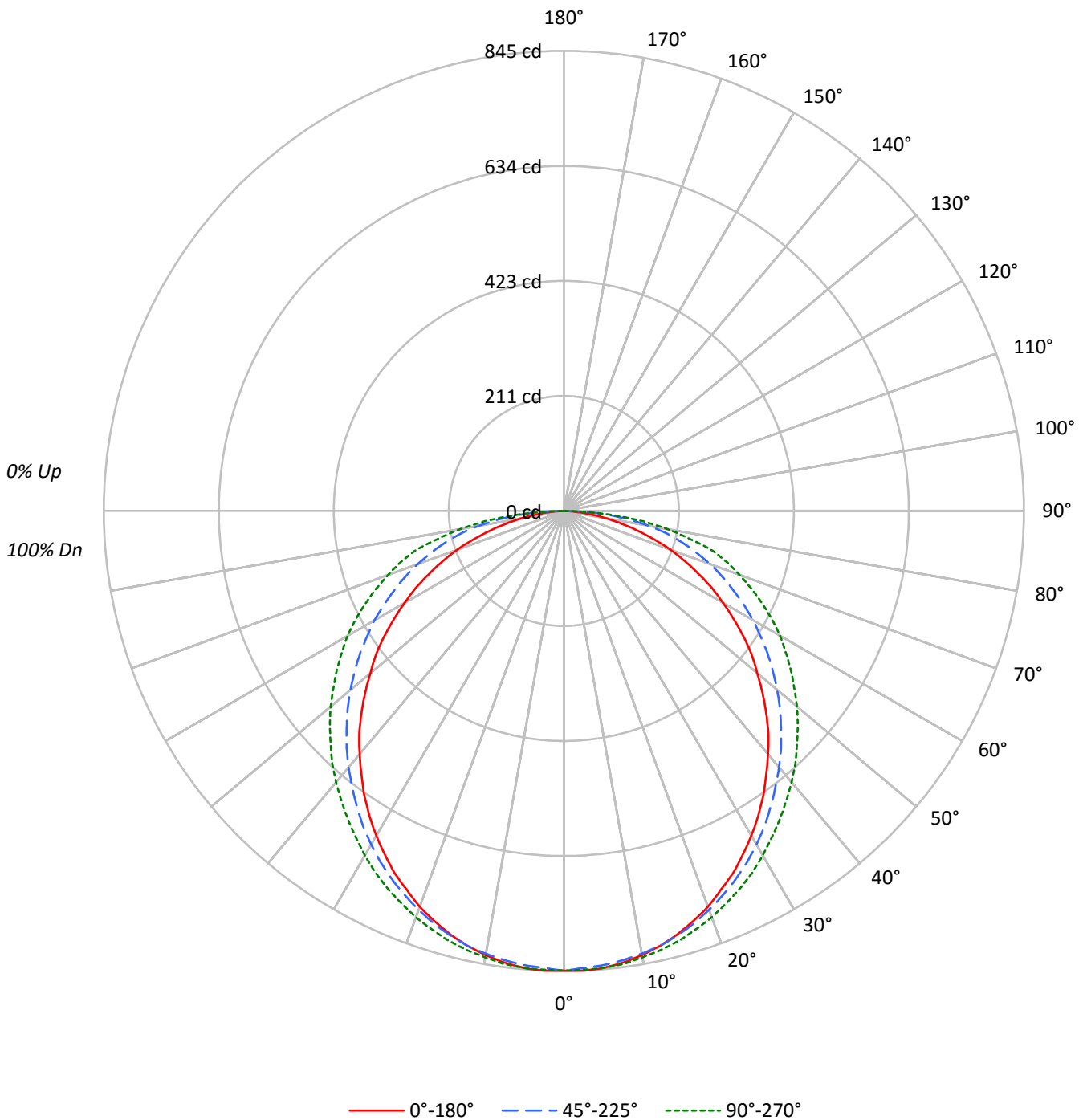
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313825

CATALOG NUMBER: 24FCZ2-30-UNV-L83050-CP125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P313825

CATALOG NUMBER: 24FCZ2-30-UNV-L83050-CP125-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	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°	1136	1136	1136
5°	1138	1131	1138
10°	1131	1128	1137
15°	1122	1124	1138
20°	1108	1116	1137
25°	1091	1108	1136
30°	1070	1099	1135
35°	1049	1088	1136
40°	1025	1080	1143
45°	1000	1073	1152
50°	971	1070	1170
55°	946	1072	1194
60°	910	1081	1234
65°	868	1092	1279
70°	822	1126	1350
75°	733	1174	1475
80°	625	1244	1507
85°	446	1232	1442



TEST NUMBER: P313825

CATALOG NUMBER: 24FCZ2-30-UNV-L83050-CP125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.9	3.1
10°-20°	228.5	8.9
20°-30°	345.1	13.5
30°-40°	415.9	16.2
40°-50°	436.6	17.1
50°-60°	408.5	16.0
60°-70°	337.3	13.2
70°-80°	229.9	9.0
80°-90°	78.4	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°	653.4	25.5
0°-40°	1069.3	41.8
0°-60°	1914.4	74.8
0°-90°	2560.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2560.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	843	842	838	843	843	80
15°	805	806	807	815	817	227
25°	735	738	747	761	765	338
35°	639	646	662	685	691	399
45°	526	537	564	595	606	405
55°	403	420	457	494	509	360
65°	273	296	343	386	402	270
75°	141	173	226	268	284	150
85°	29	57	80	90	93	36
90°	0	0	0	0	0	



TEST NUMBER: P313825

CATALOG NUMBER: 24FCZ2-30-UNV-L83050-CP125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	844.3	844.3	844.3	844.3	844.3
2.5°	845.1	844.3	840.0	844.3	843.4
5°	842.6	841.7	837.5	842.6	842.6
7.5°	836.6	836.6	832.4	838.3	839.2
10°	828.1	828.1	825.6	832.4	832.4
12.5°	817.9	817.9	817.9	824.7	825.6
15°	805.2	806.0	806.9	815.4	817.1
17.5°	789.9	791.6	794.2	804.3	806.0
20°	773.8	775.5	779.7	791.6	794.2
22.5°	753.4	757.6	763.6	777.2	779.7
25°	734.7	738.1	746.6	761.0	765.3
27.5°	711.8	716.9	727.9	743.2	749.1
30°	688.8	693.9	707.5	725.4	730.5
32.5°	664.2	671.8	686.3	705.0	710.9
35°	638.7	645.5	662.5	684.6	691.4
37.5°	610.7	620.0	638.7	662.5	671.0
40°	583.5	593.7	614.9	640.4	650.6
42.5°	556.3	566.5	590.3	619.2	629.4
45°	525.8	536.8	564.0	594.6	605.6
47.5°	495.2	508.8	538.5	570.8	582.7
50°	463.8	479.0	511.3	545.3	558.9
52.5°	435.7	450.2	484.1	520.7	533.4
55°	403.4	419.6	457.0	494.3	508.8
57.5°	370.3	388.2	428.1	468.8	483.3
60°	338.0	357.6	401.7	442.5	458.7
62.5°	306.6	326.2	372.0	414.5	430.6
65°	272.6	295.6	343.1	386.5	401.7
67.5°	240.4	265.0	315.1	357.6	372.9
70°	208.9	232.7	286.2	327.9	343.1
72.5°	175.0	202.1	255.7	299.0	315.1
75°	141.0	173.3	225.9	268.4	283.7
77.5°	109.6	142.7	195.4	230.2	237.8
80°	80.7	114.7	160.5	185.2	194.5
82.5°	51.8	85.8	122.3	140.1	147.8
85°	28.9	56.9	79.8	90.0	93.4
87.5°	11.9	24.6	32.3	36.5	36.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)