

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: P314246

Luminaire Tested: **24FCZ2-35-UNV-L83050-S-CA125-W2A-U-3500K**

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: P314246
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: 24FCZ2-35-UNV-L83050-S-CA125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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: 3405.0 lumens
Efficiency: N/A
Efficacy: 121.6 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

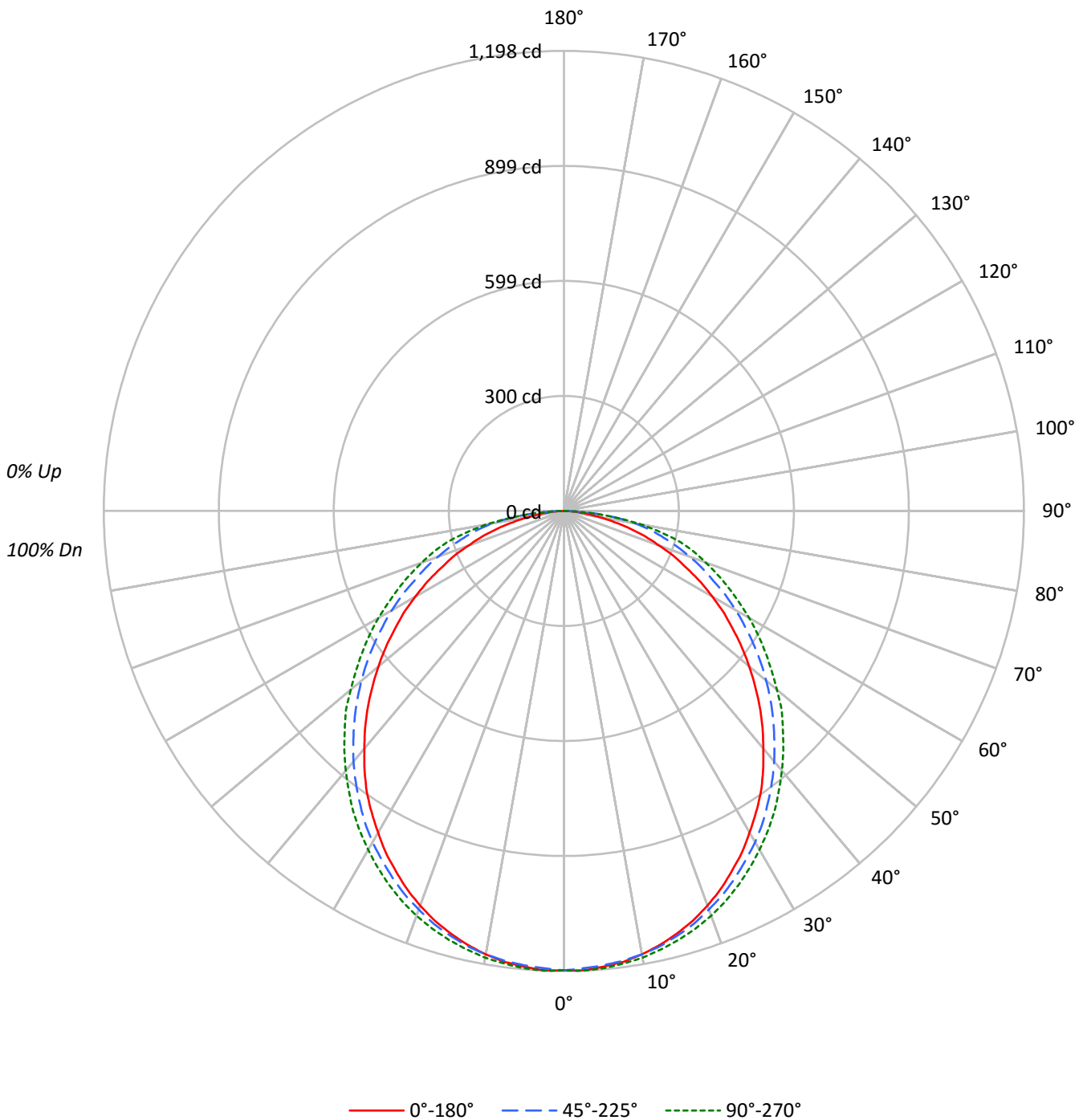
Input Watts (W): 28
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P314246

CATALOG NUMBER: 24FCZ2-35-UNV-L83050-S-CA125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P314246

CATALOG NUMBER: 24FCZ2-35-UNV-L83050-S-CA125-W2A-U-3500K

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°	1609	1609	1609
5°	1608	1604	1614
10°	1602	1602	1614
15°	1586	1594	1611
20°	1566	1581	1606
25°	1537	1565	1596
30°	1502	1548	1583
35°	1469	1522	1570
40°	1419	1497	1552
45°	1373	1467	1535
50°	1320	1440	1517
55°	1261	1413	1502
60°	1202	1391	1499
65°	1126	1367	1508
70°	1042	1374	1549
75°	933	1400	1636
80°	754	1483	1601
85°	568	1303	1269



TEST NUMBER: P314246

CATALOG NUMBER: 24FCZ2-35-UNV-L83050-S-CA125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.2	3.3
10°-20°	323.6	9.5
20°-30°	486.4	14.3
30°-40°	579.4	17.0
40°-50°	593.0	17.4
50°-60°	533.9	15.7
60°-70°	419.3	12.3
70°-80°	272.1	8.0
80°-90°	84.2	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°	923.2	27.1
0°-40°	1502.6	44.1
0°-60°	2629.5	77.2
0°-90°	3405.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3405.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1196	1196	1196	1196	1196	
5°	1191	1193	1188	1194	1195	113
15°	1139	1142	1144	1154	1156	321
25°	1035	1044	1054	1072	1075	477
35°	894	905	927	950	956	558
45°	721	739	771	800	807	556
55°	538	561	602	634	640	482
65°	354	381	429	465	474	352
75°	180	214	269	306	315	190
85°	37	68	84	82	82	44
90°	0	0	0	0	0	



TEST NUMBER: P314246

CATALOG NUMBER: 24FCZ2-35-UNV-L83050-S-CA125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1196.2	1196.2	1196.2	1196.2	1196.2
2.5°	1197.3	1197.3	1191.9	1197.3	1198.4
5°	1190.8	1193.0	1187.5	1194.0	1195.1
7.5°	1184.3	1184.3	1181.1	1187.5	1188.6
10°	1172.4	1173.5	1172.4	1180.0	1181.1
12.5°	1157.3	1159.4	1160.5	1168.1	1169.2
15°	1138.9	1142.1	1144.3	1154.0	1156.2
17.5°	1118.3	1121.6	1127.0	1137.8	1140.0
20°	1093.5	1097.8	1104.3	1118.3	1121.6
22.5°	1066.4	1070.7	1081.6	1094.5	1099.9
25°	1035.0	1043.7	1054.5	1071.8	1075.1
27.5°	1003.7	1011.3	1025.3	1043.7	1048.0
30°	966.9	978.8	996.1	1014.5	1018.8
32.5°	931.2	943.1	963.7	983.1	988.5
35°	894.4	905.3	926.9	949.6	956.1
37.5°	852.3	866.3	890.1	912.8	919.3
40°	807.9	825.2	852.3	876.1	883.6
42.5°	765.7	784.1	811.2	837.1	845.8
45°	721.4	738.7	771.1	800.3	806.8
47.5°	676.0	695.4	730.0	759.3	770.1
50°	630.5	651.1	687.9	718.2	724.6
52.5°	585.1	606.8	645.7	678.1	681.4
55°	537.5	561.3	602.4	633.8	640.3
57.5°	494.3	514.8	559.2	591.6	599.2
60°	446.7	469.4	517.0	547.3	557.0
62.5°	401.3	425.1	474.8	505.1	513.7
65°	353.7	380.7	429.4	465.1	473.7
67.5°	312.6	338.5	390.4	425.1	433.7
70°	265.0	294.2	349.3	385.0	393.7
72.5°	223.9	254.2	309.3	343.9	356.9
75°	179.5	214.1	269.3	306.1	314.7
77.5°	136.3	176.3	232.5	260.7	260.7
80°	97.3	139.5	191.4	204.4	206.6
82.5°	63.8	104.9	141.7	140.6	140.6
85°	36.8	68.1	84.4	82.2	82.2
87.5°	14.1	28.1	30.3	30.3	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)