

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: P314245

Luminaire Tested: **24FCZ2-35-UNV-L83050-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: P314245
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-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC 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: 3218.0 lumens
Efficiency: N/A
Efficacy: 115.3 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

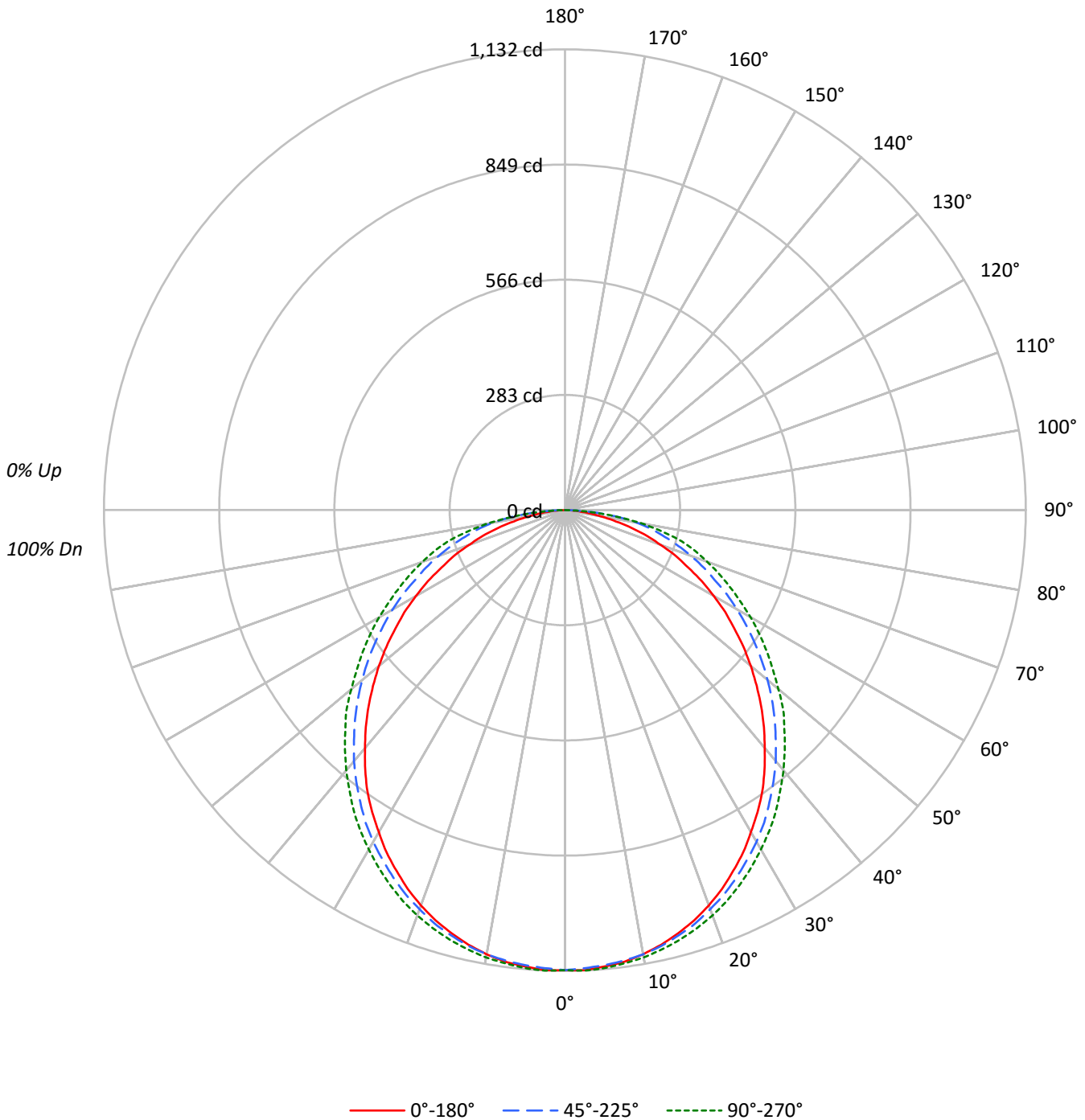
Input Watts (W): 27.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1521	1521	1521
5°	1520	1516	1526
10°	1514	1514	1525
15°	1499	1506	1522
20°	1480	1494	1518
25°	1452	1480	1508
30°	1420	1463	1496
35°	1388	1439	1484
40°	1341	1415	1467
45°	1297	1387	1451
50°	1247	1361	1433
55°	1192	1335	1419
60°	1136	1315	1417
65°	1064	1292	1425
70°	985	1299	1464
75°	882	1323	1546
80°	713	1402	1512
85°	537	1230	1200



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	3.3
10°-20°	305.8	9.5
20°-30°	459.7	14.3
30°-40°	547.6	17.0
40°-50°	560.4	17.4
50°-60°	504.5	15.7
60°-70°	396.2	12.3
70°-80°	257.2	8.0
80°-90°	79.5	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°	872.5	27.1
0°-40°	1420.1	44.1
0°-60°	2485.1	77.2
0°-90°	3218.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3218.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1125	1127	1122	1128	1130	107
15°	1076	1079	1081	1091	1093	303
25°	978	986	997	1013	1016	451
35°	845	856	876	898	904	527
45°	682	698	729	756	762	526
55°	508	530	569	599	605	455
65°	334	360	406	440	448	333
75°	170	202	254	289	297	180
85°	35	64	80	78	78	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1130.5	1130.5	1130.5	1130.5	1130.5
2.5°	1131.5	1131.5	1126.4	1131.5	1132.5
5°	1125.4	1127.4	1122.3	1128.5	1129.5
7.5°	1119.3	1119.3	1116.2	1122.3	1123.3
10°	1108.0	1109.0	1108.0	1115.2	1116.2
12.5°	1093.7	1095.8	1096.8	1103.9	1105.0
15°	1076.3	1079.4	1081.4	1090.6	1092.7
17.5°	1056.9	1060.0	1065.1	1075.3	1077.4
20°	1033.4	1037.5	1043.6	1056.9	1060.0
22.5°	1007.8	1011.9	1022.2	1034.4	1039.5
25°	978.2	986.4	996.6	1013.0	1016.0
27.5°	948.6	955.7	969.0	986.4	990.5
30°	913.8	925.1	941.4	958.8	962.9
32.5°	880.1	891.3	910.7	929.1	934.3
35°	845.3	855.5	876.0	897.5	903.6
37.5°	805.5	818.7	841.2	862.7	868.8
40°	763.6	779.9	805.5	827.9	835.1
42.5°	723.7	741.1	766.6	791.1	799.3
45°	681.8	698.1	728.8	756.4	762.5
47.5°	638.8	657.2	690.0	717.6	727.8
50°	595.9	615.3	650.1	678.7	684.8
52.5°	553.0	573.4	610.2	640.9	644.0
55°	508.0	530.5	569.3	599.0	605.1
57.5°	467.1	486.5	528.5	559.1	566.3
60°	422.2	443.6	488.6	517.2	526.4
62.5°	379.2	401.7	448.7	477.3	485.5
65°	334.2	359.8	405.8	439.5	447.7
67.5°	295.4	319.9	369.0	401.7	409.9
70°	250.4	278.0	330.2	363.9	372.1
72.5°	211.6	240.2	292.3	325.0	337.3
75°	169.7	202.4	254.5	289.3	297.4
77.5°	128.8	166.6	219.8	246.3	246.3
80°	92.0	131.9	180.9	193.2	195.2
82.5°	60.3	99.1	133.9	132.9	132.9
85°	34.8	64.4	79.7	77.7	77.7
87.5°	13.3	26.6	28.6	28.6	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)