

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: P311320

Luminaire Tested: **24FCZ2-35-UNV-L82765-S-CP125-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: P311320
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-L82765-S-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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: 3261.0 lumens
Efficiency: N/A
Efficacy: 116.0 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

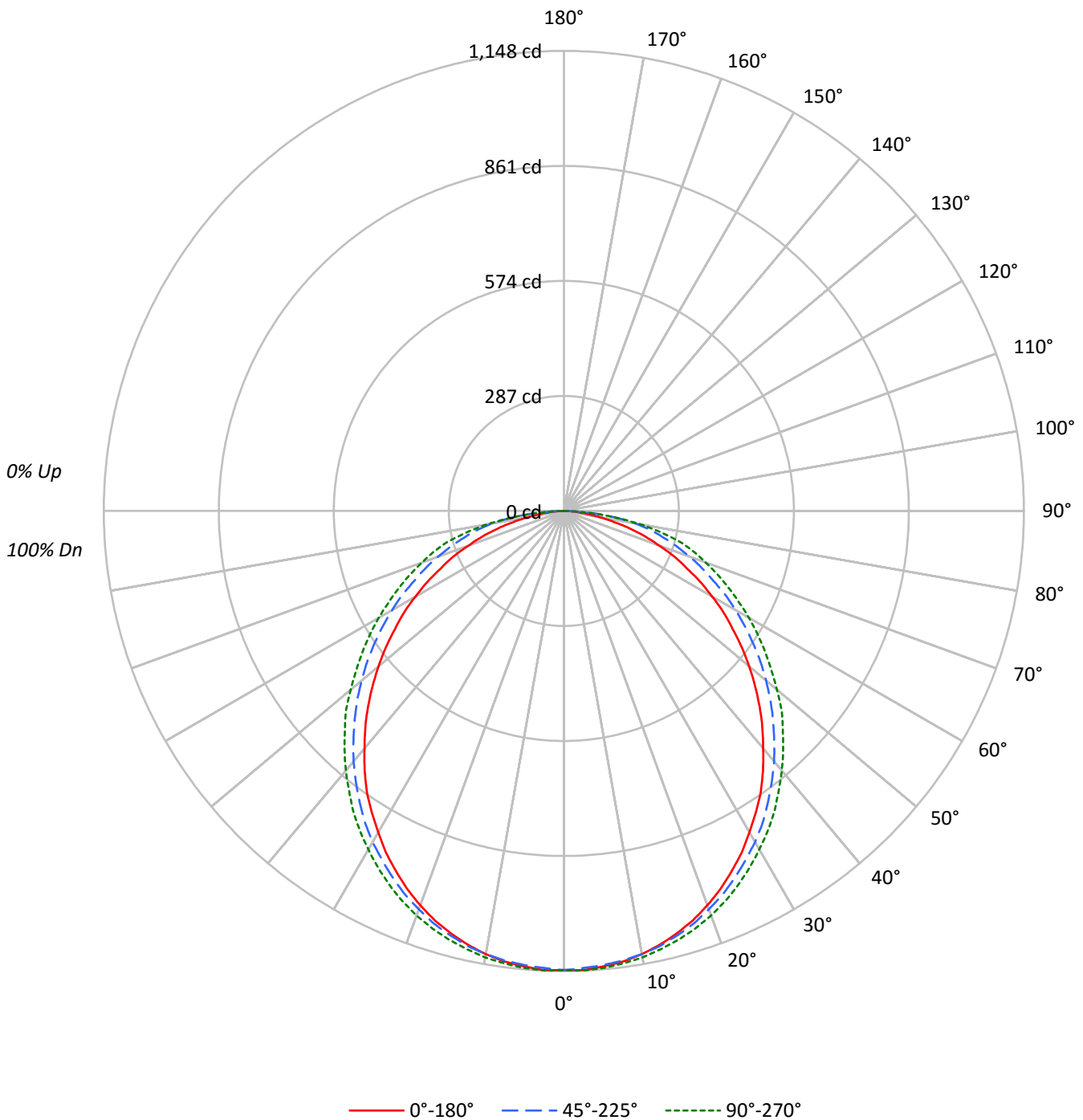
Input Watts (W): 28.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1541	1541	1541
5°	1540	1536	1546
10°	1534	1534	1545
15°	1519	1527	1542
20°	1499	1514	1538
25°	1472	1499	1529
30°	1439	1482	1516
35°	1407	1458	1504
40°	1359	1434	1486
45°	1315	1405	1470
50°	1264	1379	1453
55°	1208	1353	1438
60°	1151	1332	1435
65°	1078	1309	1444
70°	998	1316	1483
75°	894	1341	1567
80°	722	1420	1533
85°	543	1247	1215



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.5	3.3
10°-20°	309.9	9.5
20°-30°	465.8	14.3
30°-40°	554.9	17.0
40°-50°	567.9	17.4
50°-60°	511.3	15.7
60°-70°	401.5	12.3
70°-80°	260.6	8.0
80°-90°	80.6	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°	884.2	27.1
0°-40°	1439.1	44.1
0°-60°	2518.3	77.2
0°-90°	3261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1146	1146	1146	1146	1146	
5°	1140	1142	1137	1144	1145	108
15°	1091	1094	1096	1105	1107	308
25°	991	1000	1010	1026	1030	457
35°	857	867	888	909	916	534
45°	691	708	738	766	773	533
55°	515	538	577	607	613	462
65°	339	365	411	445	454	337
75°	172	205	258	293	301	182
85°	35	65	81	79	79	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1145.6	1145.6	1145.6	1145.6	1145.6
2.5°	1146.6	1146.6	1141.5	1146.6	1147.7
5°	1140.4	1142.5	1137.3	1143.5	1144.6
7.5°	1134.2	1134.2	1131.1	1137.3	1138.4
10°	1122.8	1123.9	1122.8	1130.1	1131.1
12.5°	1108.3	1110.4	1111.4	1118.7	1119.7
15°	1090.7	1093.8	1095.9	1105.2	1107.3
17.5°	1071.0	1074.1	1079.3	1089.7	1091.7
20°	1047.2	1051.4	1057.6	1071.0	1074.1
22.5°	1021.3	1025.5	1035.8	1048.2	1053.4
25°	991.3	999.6	1009.9	1026.5	1029.6
27.5°	961.2	968.5	982.0	999.6	1003.7
30°	926.0	937.4	954.0	971.6	975.7
32.5°	891.8	903.2	922.9	941.6	946.7
35°	856.6	867.0	887.7	909.4	915.7
37.5°	816.2	829.7	852.5	874.2	880.4
40°	773.8	790.3	816.2	839.0	846.3
42.5°	733.4	751.0	776.9	801.7	810.0
45°	690.9	707.5	738.5	766.5	772.7
47.5°	647.4	666.0	699.2	727.1	737.5
50°	603.9	623.6	658.8	687.8	694.0
52.5°	560.4	581.1	618.4	649.5	652.6
55°	514.8	537.6	576.9	607.0	613.2
57.5°	473.4	493.0	535.5	566.6	573.8
60°	427.8	449.5	495.1	524.1	533.4
62.5°	384.3	407.1	454.7	483.7	492.0
65°	338.7	364.6	411.2	445.4	453.7
67.5°	299.4	324.2	373.9	407.1	415.4
70°	253.8	281.7	334.6	368.7	377.0
72.5°	214.4	243.4	296.2	329.4	341.8
75°	171.9	205.1	257.9	293.1	301.4
77.5°	130.5	168.8	222.7	249.6	249.6
80°	93.2	133.6	183.3	195.8	197.8
82.5°	61.1	100.5	135.7	134.7	134.7
85°	35.2	65.3	80.8	78.7	78.7
87.5°	13.5	26.9	29.0	29.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)