

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: P311323

Luminaire Tested: **24FCZ2-35-UNV-L82765-S-CP125-W2A-U-5000K**

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: P311323
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-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 5000K 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: 3437.0 lumens
Efficiency: N/A
Efficacy: 119.8 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

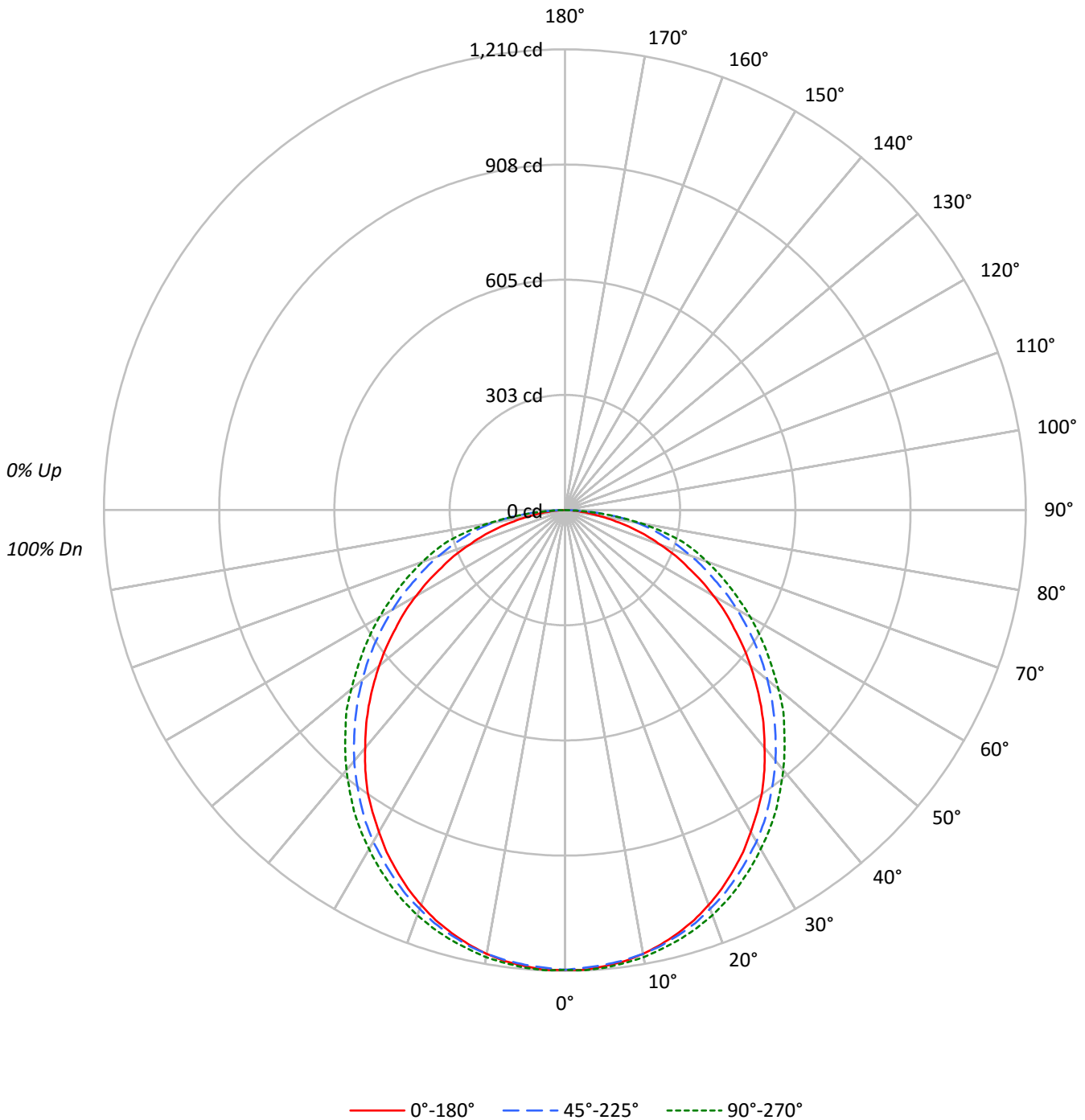
Input Watts (W): 28.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1625	1625	1625
5°	1623	1619	1629
10°	1617	1617	1629
15°	1601	1609	1626
20°	1580	1596	1621
25°	1551	1580	1611
30°	1516	1562	1598
35°	1483	1537	1585
40°	1432	1511	1567
45°	1386	1481	1550
50°	1332	1453	1531
55°	1273	1426	1516
60°	1213	1404	1513
65°	1137	1380	1522
70°	1052	1387	1563
75°	942	1413	1652
80°	762	1497	1616
85°	573	1315	1281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.3	3.3
10°-20°	326.6	9.5
20°-30°	491.0	14.3
30°-40°	584.8	17.0
40°-50°	598.6	17.4
50°-60°	538.9	15.7
60°-70°	423.2	12.3
70°-80°	274.7	8.0
80°-90°	85.0	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°	931.9	27.1
0°-40°	1516.8	44.1
0°-60°	2654.2	77.2
0°-90°	3437.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3437.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1207	1207	1207	1207	1207	
5°	1202	1204	1199	1205	1206	114
15°	1150	1153	1155	1165	1167	324
25°	1045	1054	1064	1082	1085	481
35°	903	914	936	958	965	563
45°	728	746	778	808	814	561
55°	543	567	608	640	646	486
65°	357	384	433	469	478	355
75°	181	216	272	309	318	192
85°	37	69	85	83	83	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1207.4	1207.4	1207.4	1207.4	1207.4
2.5°	1208.5	1208.5	1203.1	1208.5	1209.6
5°	1202.0	1204.2	1198.7	1205.3	1206.3
7.5°	1195.4	1195.4	1192.2	1198.7	1199.8
10°	1183.4	1184.5	1183.4	1191.1	1192.2
12.5°	1168.1	1170.3	1171.4	1179.1	1180.1
15°	1149.6	1152.9	1155.0	1164.9	1167.0
17.5°	1128.8	1132.1	1137.6	1148.5	1150.7
20°	1103.7	1108.1	1114.6	1128.8	1132.1
22.5°	1076.4	1080.8	1091.7	1104.8	1110.3
25°	1044.8	1053.5	1064.4	1081.9	1085.2
27.5°	1013.1	1020.8	1034.9	1053.5	1057.9
30°	976.0	988.0	1005.5	1024.0	1028.4
32.5°	940.0	952.0	972.7	992.4	997.8
35°	902.9	913.8	935.6	958.5	965.1
37.5°	860.3	874.5	898.5	921.4	928.0
40°	815.5	833.0	860.3	884.3	891.9
42.5°	772.9	791.5	818.8	845.0	853.7
45°	728.2	745.6	778.4	807.9	814.4
47.5°	682.3	702.0	736.9	766.4	777.3
50°	636.5	657.2	694.3	724.9	731.5
52.5°	590.6	612.5	651.8	684.5	687.8
55°	542.6	566.6	608.1	639.7	646.3
57.5°	498.9	519.7	564.4	597.2	604.8
60°	450.9	473.8	521.8	552.4	562.2
62.5°	405.0	429.0	479.3	509.8	518.6
65°	357.0	384.3	433.4	469.4	478.2
67.5°	315.5	341.7	394.1	429.0	437.8
70°	267.5	296.9	352.6	388.7	397.4
72.5°	226.0	256.6	312.2	347.2	360.3
75°	181.2	216.2	271.8	309.0	317.7
77.5°	137.6	178.0	234.7	263.1	263.1
80°	98.3	140.8	193.2	206.3	208.5
82.5°	64.4	105.9	143.0	141.9	141.9
85°	37.1	68.8	85.2	83.0	83.0
87.5°	14.2	28.4	30.6	30.6	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)