

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: P309560

Luminaire Tested: **24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-5500K**

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: P309560
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-50-UNV-L82765-HRP-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5500K 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: 3594.0 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

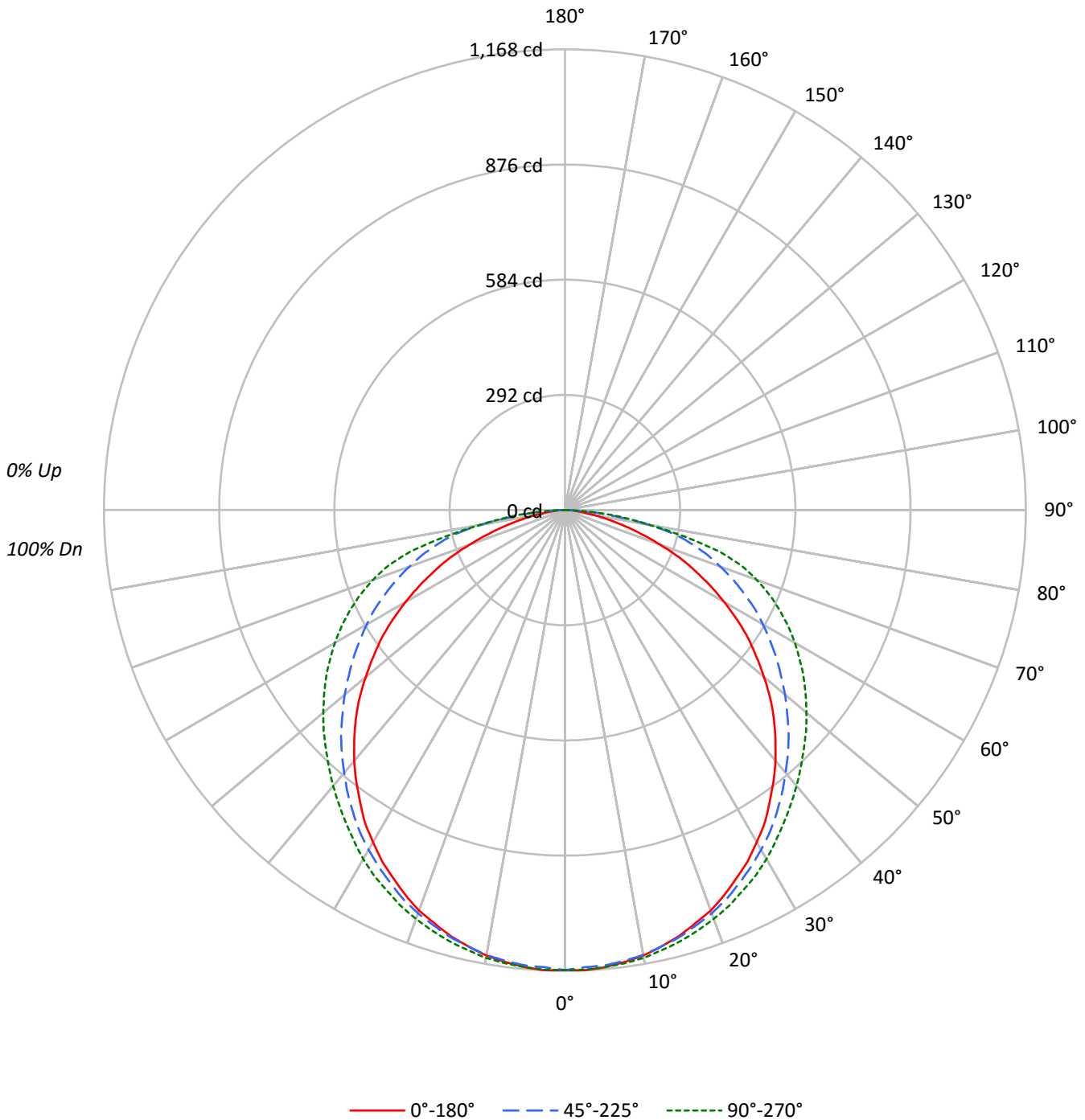
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1569	1569	1569
5°	1571	1565	1571
10°	1566	1564	1575
15°	1557	1561	1576
20°	1547	1558	1579
25°	1528	1550	1582
30°	1510	1545	1587
35°	1485	1537	1589
40°	1459	1528	1604
45°	1426	1526	1629
50°	1379	1524	1672
55°	1331	1535	1733
60°	1255	1559	1810
65°	1159	1595	1911
70°	1012	1651	2036
75°	821	1736	2104
80°	606	1702	1702
85°	465	1254	1417



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.5	3.1
10°-20°	317.2	8.8
20°-30°	482.9	13.4
30°-40°	586.4	16.3
40°-50°	619.5	17.2
50°-60°	584.6	16.3
60°-70°	486.0	13.5
70°-80°	319.8	8.9
80°-90°	87.2	2.4
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°	910.6	25.3
0°-40°	1497.0	41.7
0°-60°	2701.0	75.2
0°-90°	3594.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3594.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1166	1166	1166	1166	1166	
5°	1163	1163	1159	1163	1163	110
15°	1118	1119	1121	1132	1132	315
25°	1029	1035	1044	1062	1065	475
35°	904	915	936	960	968	566
45°	749	764	802	841	856	577
55°	567	591	654	716	739	505
65°	364	406	501	575	600	360
75°	158	230	334	396	405	170
85°	30	66	81	90	92	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1166.1	1166.1	1166.1	1166.1	1166.1
2.5°	1167.6	1166.1	1160.1	1166.1	1166.1
5°	1163.1	1163.1	1158.6	1163.1	1163.1
7.5°	1155.5	1155.5	1152.5	1158.6	1158.6
10°	1146.5	1146.5	1145.0	1152.5	1152.5
12.5°	1133.0	1134.5	1133.0	1142.0	1142.0
15°	1117.9	1119.4	1120.9	1131.5	1131.5
17.5°	1098.4	1101.4	1104.4	1116.4	1117.9
20°	1080.3	1081.8	1087.8	1101.4	1102.9
22.5°	1056.2	1060.8	1068.3	1081.8	1086.3
25°	1029.2	1035.2	1044.2	1062.3	1065.3
27.5°	1003.6	1008.1	1020.1	1039.7	1045.7
30°	972.0	979.5	994.6	1014.1	1021.6
32.5°	941.9	949.4	967.5	988.5	994.6
35°	904.3	914.8	935.9	959.9	967.5
37.5°	868.2	878.7	904.3	931.4	940.4
40°	830.5	842.6	869.7	901.3	913.3
42.5°	789.9	806.5	836.6	871.2	884.7
45°	749.3	764.3	802.0	841.1	856.1
47.5°	705.7	723.7	764.3	811.0	829.0
50°	659.0	681.6	728.2	779.4	799.0
52.5°	612.4	638.0	690.6	747.8	768.9
55°	567.2	591.3	654.5	716.2	738.8
57.5°	517.6	547.7	616.9	683.1	705.7
60°	466.4	499.5	579.3	648.5	672.6
62.5°	415.3	452.9	543.2	612.4	638.0
65°	364.1	406.2	501.0	574.8	600.3
67.5°	314.5	361.1	461.9	535.6	561.2
70°	257.3	316.0	419.8	492.0	517.6
72.5°	204.6	272.3	379.2	446.9	469.4
75°	158.0	230.2	334.0	395.7	404.7
77.5°	115.9	188.1	287.4	308.4	310.0
80°	78.2	150.5	219.7	216.7	219.7
82.5°	51.2	112.8	138.4	155.0	156.5
85°	30.1	66.2	81.2	90.3	91.8
87.5°	15.0	22.6	28.6	30.1	33.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)