

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: P310956

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CA125-W2A-U-5700K**

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: P310956
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5700K 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: 5271.0 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

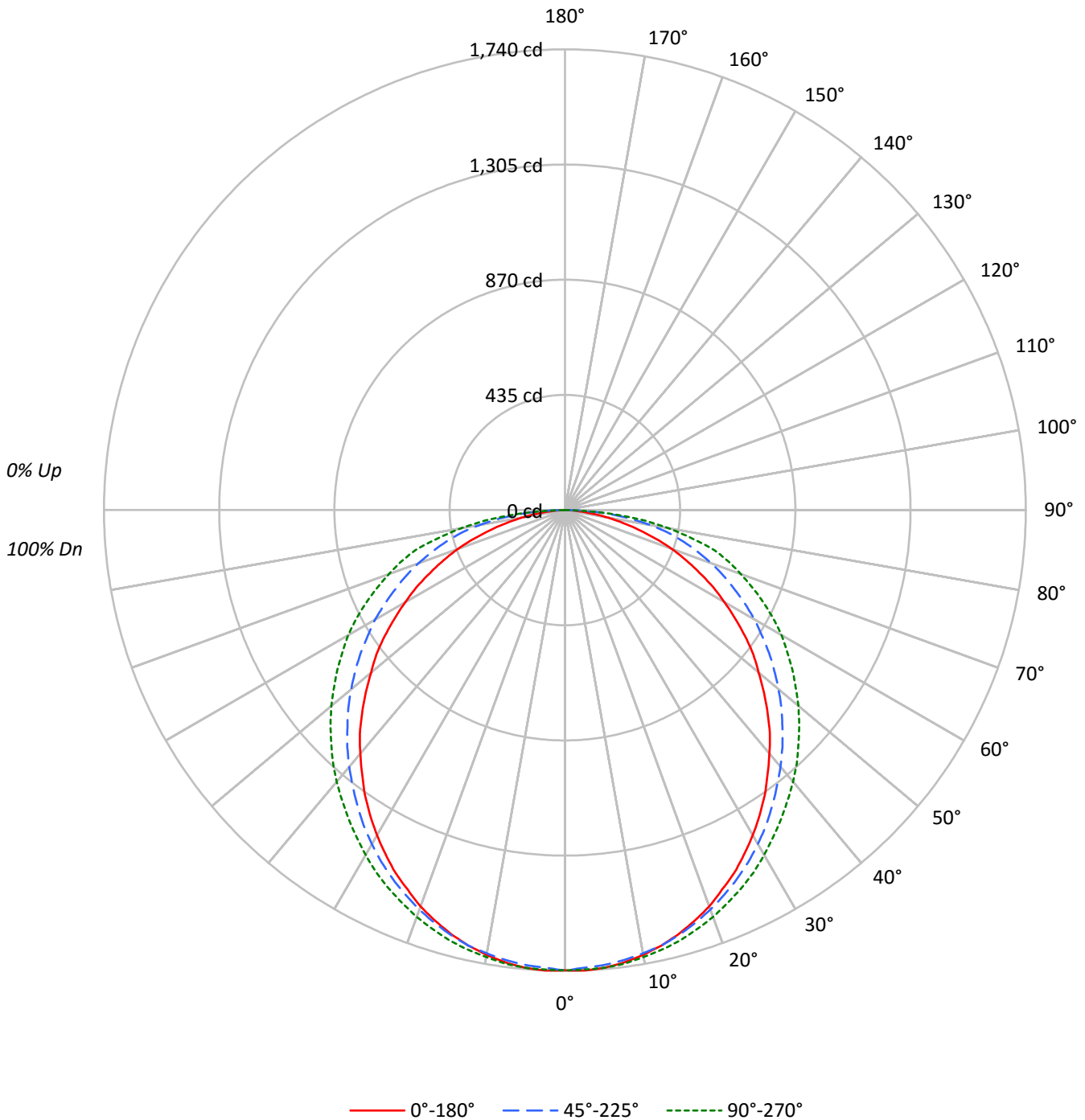
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	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	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2339	2339	2339
5°	2343	2329	2343
10°	2330	2322	2341
15°	2309	2314	2344
20°	2281	2299	2341
25°	2246	2282	2339
30°	2204	2263	2337
35°	2160	2241	2338
40°	2110	2224	2353
45°	2060	2210	2373
50°	1999	2204	2409
55°	1949	2207	2457
60°	1873	2226	2541
65°	1787	2249	2634
70°	1692	2319	2779
75°	1509	2418	3036
80°	1287	2561	3103
85°	919	2538	2970



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.5	3.1
10°-20°	470.4	8.9
20°-30°	710.5	13.5
30°-40°	856.3	16.2
40°-50°	899.0	17.1
50°-60°	841.0	16.0
60°-70°	694.5	13.2
70°-80°	473.3	9.0
80°-90°	161.4	3.1
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°	1345.4	25.5
0°-40°	2201.7	41.8
0°-60°	3941.7	74.8
0°-90°	5271.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5271.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1738	1738	1738	1738	1738	
5°	1735	1733	1724	1735	1735	165
15°	1658	1660	1661	1679	1682	467
25°	1513	1520	1537	1567	1576	696
35°	1315	1329	1364	1410	1424	822
45°	1082	1105	1161	1224	1247	835
55°	831	864	941	1018	1048	741
65°	561	609	706	796	827	557
75°	290	357	465	553	584	310
85°	60	117	164	185	192	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1738.3	1738.3	1738.3	1738.3	1738.3
2.5°	1740.1	1738.3	1729.6	1738.3	1736.6
5°	1734.8	1733.1	1724.3	1734.8	1734.8
7.5°	1722.6	1722.6	1713.8	1726.1	1727.8
10°	1705.1	1705.1	1699.9	1713.8	1713.8
12.5°	1684.1	1684.1	1684.1	1698.1	1699.9
15°	1657.9	1659.6	1661.4	1678.9	1682.4
17.5°	1626.4	1629.9	1635.1	1656.1	1659.6
20°	1593.2	1596.7	1605.4	1629.9	1635.1
22.5°	1551.2	1560.0	1572.2	1600.2	1605.4
25°	1512.7	1519.7	1537.2	1566.9	1575.7
27.5°	1465.5	1476.0	1498.7	1530.2	1542.5
30°	1418.3	1428.8	1456.8	1493.5	1504.0
32.5°	1367.6	1383.3	1413.0	1451.5	1463.8
35°	1315.1	1329.1	1364.1	1409.6	1423.5
37.5°	1257.4	1276.6	1315.1	1364.1	1381.6
40°	1201.4	1222.4	1266.1	1318.6	1339.6
42.5°	1145.5	1166.5	1215.4	1274.9	1295.9
45°	1082.5	1105.3	1161.2	1224.2	1246.9
47.5°	1019.6	1047.5	1108.8	1175.2	1199.7
50°	954.9	986.3	1052.8	1122.7	1150.7
52.5°	897.1	926.9	996.8	1072.0	1098.3
55°	830.7	863.9	940.9	1017.8	1047.5
57.5°	762.5	799.2	881.4	965.4	995.1
60°	696.0	736.3	827.2	911.1	944.4
62.5°	631.3	671.5	766.0	853.4	886.7
65°	561.4	608.6	706.5	795.7	827.2
67.5°	494.9	545.6	648.8	736.3	767.7
70°	430.2	479.2	589.4	675.0	706.5
72.5°	360.3	416.2	526.4	615.6	648.8
75°	290.3	356.8	465.2	552.6	584.1
77.5°	225.6	293.8	402.2	473.9	489.7
80°	166.1	236.1	330.5	381.2	400.5
82.5°	106.7	176.6	251.8	288.6	304.3
85°	59.5	117.2	164.4	185.4	192.4
87.5°	24.5	50.7	66.5	75.2	75.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)