

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: P310965

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP125-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: P310965
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-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 5169.0 lumens
Efficiency: N/A
Efficacy: 116.7 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

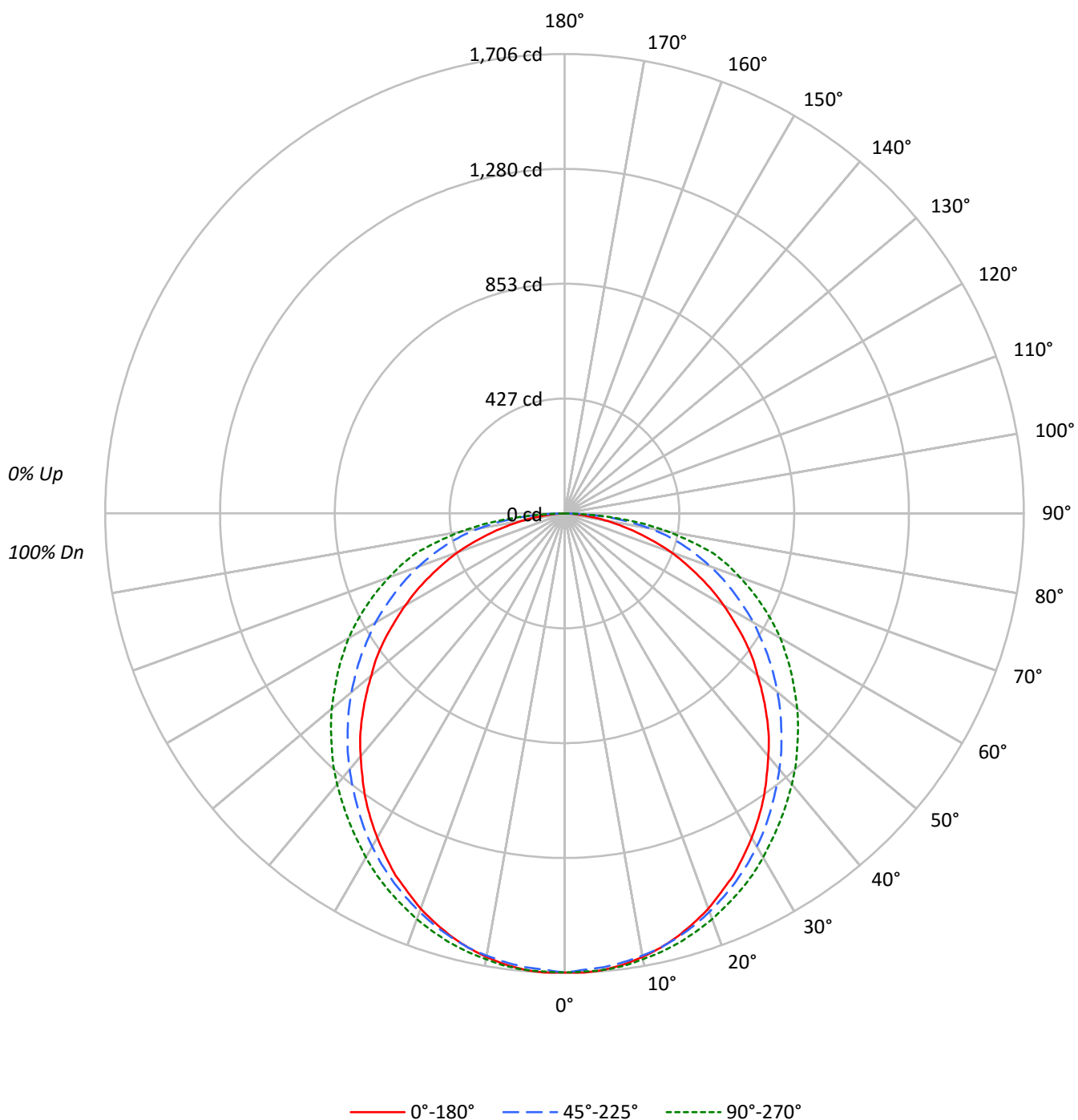
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2294	2294	2294
5°	2298	2284	2298
10°	2284	2278	2296
15°	2265	2269	2298
20°	2237	2254	2296
25°	2202	2238	2294
30°	2161	2220	2291
35°	2118	2197	2293
40°	2069	2181	2307
45°	2020	2167	2327
50°	1960	2161	2362
55°	1911	2164	2410
60°	1837	2183	2492
65°	1753	2206	2583
70°	1660	2273	2726
75°	1480	2372	2978
80°	1262	2511	3043
85°	900	2489	2912



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.3	3.1
10°-20°	461.3	8.9
20°-30°	696.8	13.5
30°-40°	839.7	16.2
40°-50°	881.6	17.1
50°-60°	824.8	16.0
60°-70°	681.1	13.2
70°-80°	464.1	9.0
80°-90°	158.3	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°	1319.4	25.5
0°-40°	2159.1	41.8
0°-60°	3865.5	74.8
0°-90°	5169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1701	1700	1691	1701	1701	161
15°	1626	1628	1629	1646	1650	458
25°	1484	1490	1508	1537	1545	683
35°	1290	1303	1338	1382	1396	806
45°	1062	1084	1139	1200	1223	819
55°	815	847	923	998	1027	727
65°	550	597	693	780	811	546
75°	285	350	456	542	573	304
85°	58	115	161	182	189	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1704.7	1704.7	1704.7	1704.7	1704.7
2.5°	1706.4	1704.7	1696.1	1704.7	1703.0
5°	1701.3	1699.5	1691.0	1701.3	1701.3
7.5°	1689.3	1689.3	1680.7	1692.7	1694.4
10°	1672.1	1672.1	1667.0	1680.7	1680.7
12.5°	1651.5	1651.5	1651.5	1665.2	1667.0
15°	1625.8	1627.5	1629.2	1646.4	1649.8
17.5°	1594.9	1598.4	1603.5	1624.1	1627.5
20°	1562.3	1565.8	1574.4	1598.4	1603.5
22.5°	1521.2	1529.8	1541.8	1569.2	1574.4
25°	1483.5	1490.3	1507.5	1536.6	1545.2
27.5°	1437.2	1447.4	1469.7	1500.6	1512.6
30°	1390.8	1401.1	1428.6	1464.6	1474.9
32.5°	1341.1	1356.6	1385.7	1423.4	1435.4
35°	1289.7	1303.4	1337.7	1382.3	1396.0
37.5°	1233.1	1251.9	1289.7	1337.7	1354.8
40°	1178.2	1198.8	1241.6	1293.1	1313.7
42.5°	1123.3	1143.9	1191.9	1250.2	1270.8
45°	1061.6	1083.9	1138.7	1200.5	1222.8
47.5°	999.8	1027.3	1087.3	1152.5	1176.5
50°	936.4	967.2	1032.4	1101.0	1128.5
52.5°	879.8	908.9	977.5	1051.3	1077.0
55°	814.6	847.2	922.7	998.1	1027.3
57.5°	747.7	783.7	864.4	946.7	975.8
60°	682.6	722.0	811.2	893.5	926.1
62.5°	619.1	658.6	751.2	836.9	869.5
65°	550.5	596.8	692.9	780.3	811.2
67.5°	485.3	535.1	636.3	722.0	752.9
70°	421.9	469.9	577.9	662.0	692.9
72.5°	353.3	408.2	516.2	603.7	636.3
75°	284.7	349.9	456.2	541.9	572.8
77.5°	221.2	288.1	394.4	464.8	480.2
80°	162.9	231.5	324.1	373.9	392.7
82.5°	104.6	173.2	247.0	283.0	298.4
85°	58.3	114.9	161.2	181.8	188.6
87.5°	24.0	49.7	65.2	73.7	73.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)