

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: P310947

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CA08-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: P310947
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-CA08-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" 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: 5290.0 lumens
Efficiency: N/A
Efficacy: 119.4 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

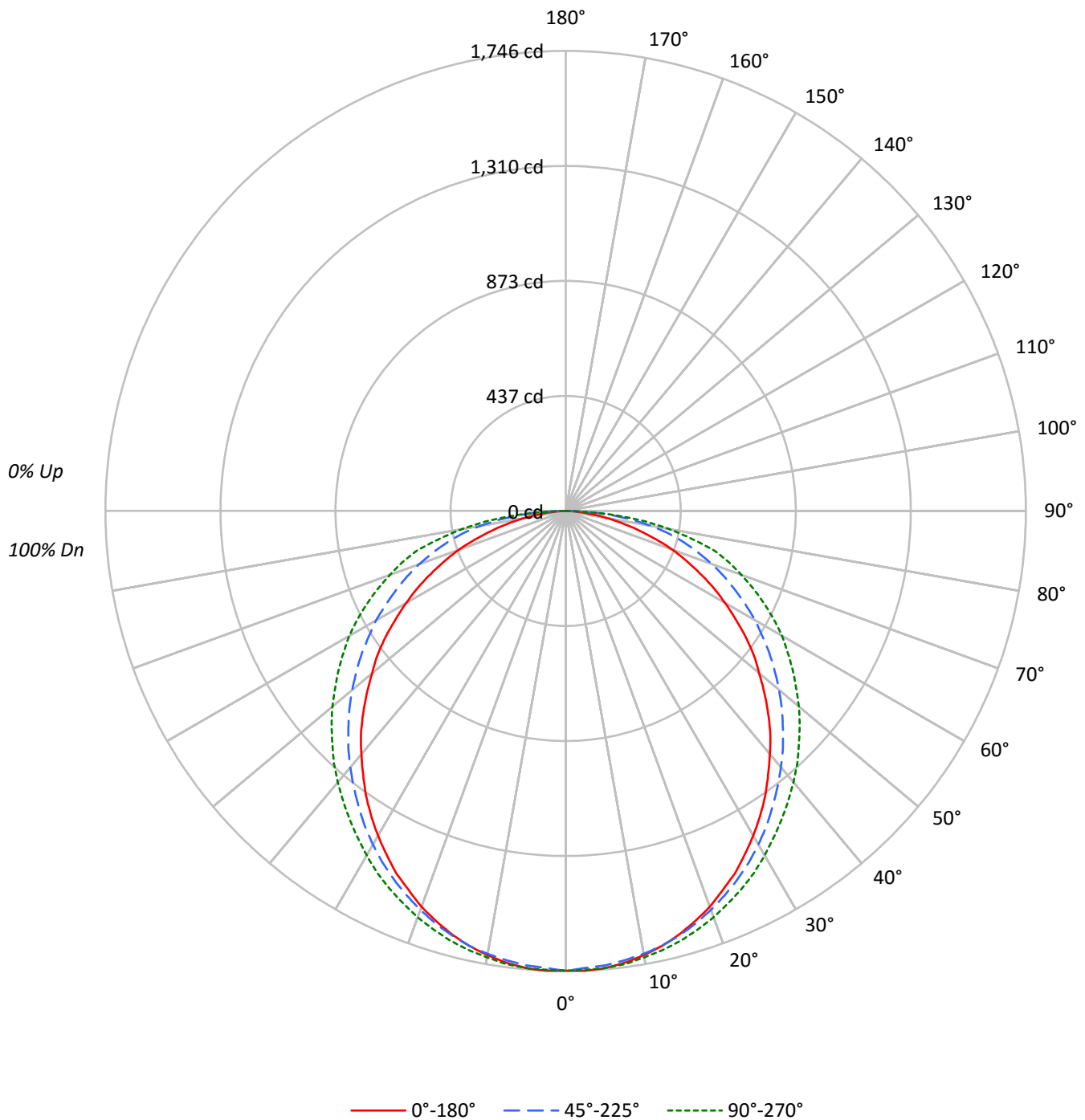
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2347	2347	2347
5°	2352	2337	2352
10°	2338	2331	2350
15°	2318	2323	2352
20°	2289	2307	2350
25°	2254	2290	2348
30°	2211	2271	2345
35°	2168	2249	2347
40°	2118	2232	2361
45°	2067	2218	2381
50°	2006	2212	2417
55°	1956	2215	2466
60°	1880	2234	2551
65°	1794	2258	2643
70°	1699	2327	2790
75°	1515	2427	3047
80°	1292	2570	3114
85°	922	2547	2981



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.1	3.1
10°-20°	472.1	8.9
20°-30°	713.1	13.5
30°-40°	859.4	16.2
40°-50°	902.2	17.1
50°-60°	844.1	16.0
60°-70°	697.1	13.2
70°-80°	475.0	9.0
80°-90°	162.0	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°	1350.3	25.5
0°-40°	2209.7	41.8
0°-60°	3956.0	74.8
0°-90°	5290.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5290.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1745	1745	1745	1745	1745	
5°	1741	1739	1731	1741	1741	165
15°	1664	1666	1667	1685	1688	469
25°	1518	1525	1543	1573	1581	699
35°	1320	1334	1369	1415	1429	825
45°	1086	1109	1165	1229	1251	838
55°	834	867	944	1022	1051	744
65°	563	611	709	799	830	559
75°	291	358	467	555	586	311
85°	60	118	165	186	193	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1744.6	1744.6	1744.6	1744.6	1744.6
2.5°	1746.4	1744.6	1735.8	1744.6	1742.8
5°	1741.1	1739.3	1730.6	1741.1	1741.1
7.5°	1728.8	1728.8	1720.0	1732.3	1734.1
10°	1711.2	1711.2	1706.0	1720.0	1720.0
12.5°	1690.2	1690.2	1690.2	1704.2	1706.0
15°	1663.9	1665.6	1667.4	1684.9	1688.4
17.5°	1632.3	1635.8	1641.0	1662.1	1665.6
20°	1598.9	1602.4	1611.2	1635.8	1641.0
22.5°	1556.8	1565.6	1577.9	1605.9	1611.2
25°	1518.2	1525.2	1542.8	1572.6	1581.4
27.5°	1470.8	1481.3	1504.1	1535.7	1548.0
30°	1423.4	1433.9	1462.0	1498.9	1509.4
32.5°	1372.5	1388.3	1418.1	1456.8	1469.0
35°	1319.9	1333.9	1369.0	1414.6	1428.7
37.5°	1261.9	1281.2	1319.9	1369.0	1386.6
40°	1205.8	1226.8	1270.7	1323.4	1344.4
42.5°	1149.6	1170.7	1219.8	1279.5	1300.5
45°	1086.4	1109.2	1165.4	1228.6	1251.4
47.5°	1023.2	1051.3	1112.8	1179.4	1204.0
50°	958.3	989.9	1056.6	1126.8	1154.9
52.5°	900.4	930.2	1000.4	1075.9	1102.2
55°	833.7	867.0	944.3	1021.5	1051.3
57.5°	765.2	802.1	884.6	968.8	998.7
60°	698.5	738.9	830.2	914.4	947.8
62.5°	633.6	674.0	768.7	856.5	889.8
65°	563.4	610.8	709.1	798.6	830.2
67.5°	496.7	547.6	651.2	738.9	770.5
70°	431.8	480.9	591.5	677.5	709.1
72.5°	361.6	417.7	528.3	617.8	651.2
75°	291.4	358.0	466.9	554.6	586.2
77.5°	226.4	294.9	403.7	475.6	491.4
80°	166.7	236.9	331.7	382.6	401.9
82.5°	107.1	177.3	252.7	289.6	305.4
85°	59.7	117.6	165.0	186.0	193.1
87.5°	24.6	50.9	66.7	75.5	75.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)