

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: P310958

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP125-W2A-U-2700K**

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: P310958
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-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 2700K 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: 4550.0 lumens
Efficiency: N/A
Efficacy: 105.6 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

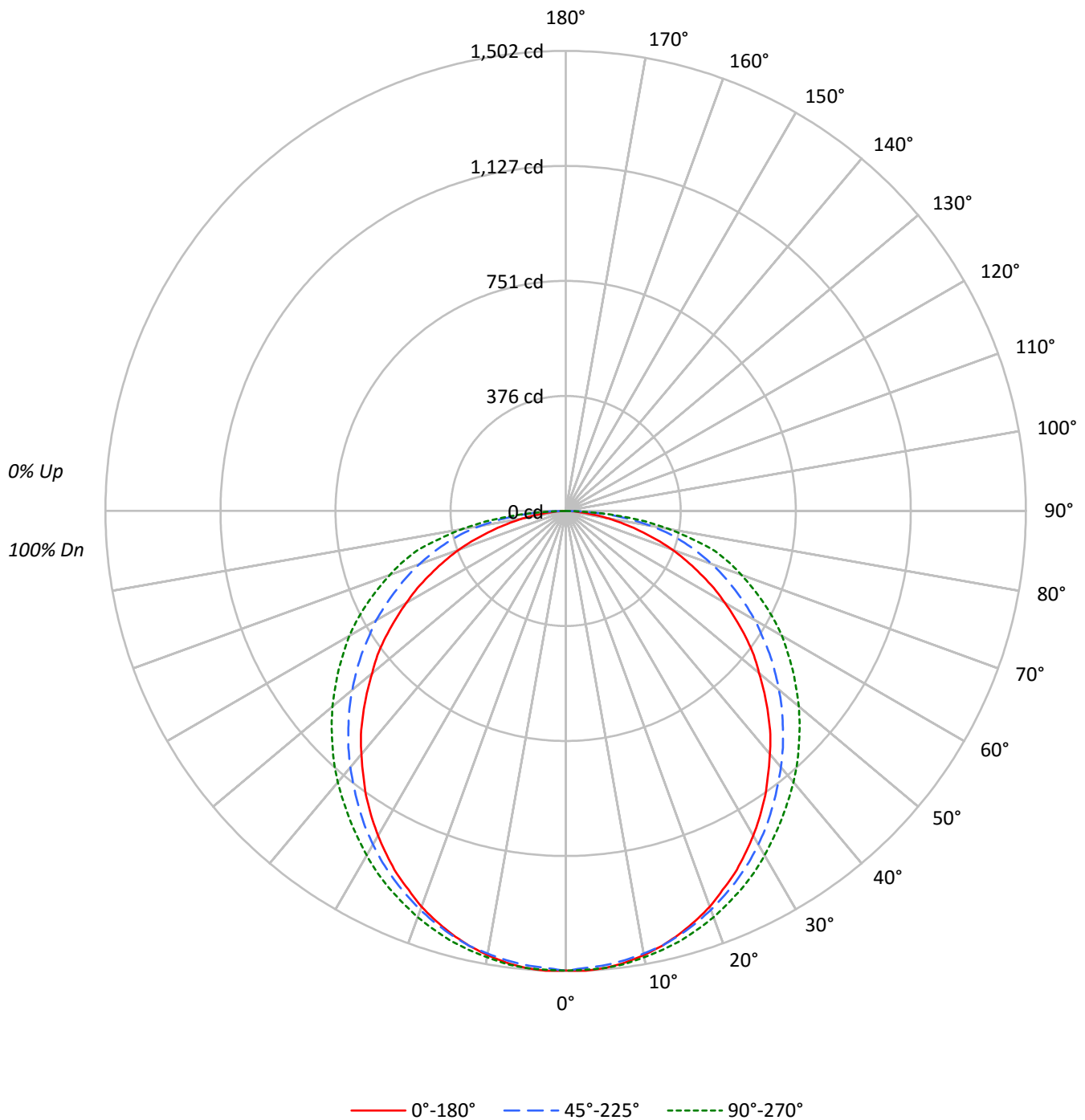
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2019	2019	2019
5°	2023	2010	2023
10°	2011	2005	2021
15°	1993	1998	2023
20°	1969	1984	2021
25°	1939	1970	2019
30°	1902	1954	2017
35°	1865	1934	2018
40°	1822	1920	2031
45°	1778	1907	2048
50°	1725	1902	2079
55°	1682	1905	2121
60°	1617	1921	2194
65°	1543	1942	2273
70°	1461	2001	2399
75°	1303	2088	2621
80°	1111	2211	2679
85°	792	2191	2564



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.0	3.1
10°-20°	406.1	8.9
20°-30°	613.3	13.5
30°-40°	739.2	16.2
40°-50°	776.0	17.1
50°-60°	726.0	16.0
60°-70°	599.5	13.2
70°-80°	408.5	9.0
80°-90°	139.3	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°	1161.4	25.5
0°-40°	1900.6	41.8
0°-60°	3402.6	74.8
0°-90°	4550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4550.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1501	1501	1501	1501	1501	
5°	1498	1496	1488	1498	1498	142
15°	1431	1433	1434	1449	1452	403
25°	1306	1312	1327	1353	1360	601
35°	1135	1147	1178	1217	1229	709
45°	934	954	1002	1057	1076	721
55°	717	746	812	879	904	640
65°	485	525	610	687	714	481
75°	251	308	402	477	504	267
85°	51	101	142	160	166	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1500.6	1500.6	1500.6	1500.6	1500.6
2.5°	1502.1	1500.6	1493.0	1500.6	1499.0
5°	1497.5	1496.0	1488.5	1497.5	1497.5
7.5°	1487.0	1487.0	1479.4	1490.0	1491.5
10°	1471.9	1471.9	1467.3	1479.4	1479.4
12.5°	1453.8	1453.8	1453.8	1465.8	1467.3
15°	1431.1	1432.6	1434.1	1449.2	1452.2
17.5°	1403.9	1407.0	1411.5	1429.6	1432.6
20°	1375.3	1378.3	1385.8	1407.0	1411.5
22.5°	1339.0	1346.6	1357.1	1381.3	1385.8
25°	1305.8	1311.8	1326.9	1352.6	1360.2
27.5°	1265.1	1274.1	1293.7	1320.9	1331.5
30°	1224.3	1233.3	1257.5	1289.2	1298.3
32.5°	1180.5	1194.1	1219.8	1253.0	1263.5
35°	1135.2	1147.3	1177.5	1216.7	1228.8
37.5°	1085.4	1102.0	1135.2	1177.5	1192.6
40°	1037.1	1055.2	1093.0	1138.2	1156.4
42.5°	988.8	1006.9	1049.2	1100.5	1118.6
45°	934.4	954.1	1002.4	1056.7	1076.4
47.5°	880.1	904.3	957.1	1014.5	1035.6
50°	824.2	851.4	908.8	969.2	993.3
52.5°	774.4	800.1	860.5	925.4	948.0
55°	717.1	745.7	812.2	878.6	904.3
57.5°	658.2	689.9	760.8	833.3	859.0
60°	600.8	635.5	714.0	786.5	815.2
62.5°	545.0	579.7	661.2	736.7	765.4
65°	484.6	525.3	609.9	686.9	714.0
67.5°	427.2	471.0	560.1	635.5	662.7
70°	371.4	413.6	508.7	582.7	609.9
72.5°	311.0	359.3	454.4	531.4	560.1
75°	250.6	308.0	401.6	477.0	504.2
77.5°	194.7	253.6	347.2	409.1	422.7
80°	143.4	203.8	285.3	329.1	345.7
82.5°	92.1	152.5	217.4	249.1	262.7
85°	51.3	101.1	141.9	160.0	166.1
87.5°	21.1	43.8	57.4	64.9	64.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)