

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: P310983

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP250-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: P310983
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-CP250-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 4909.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

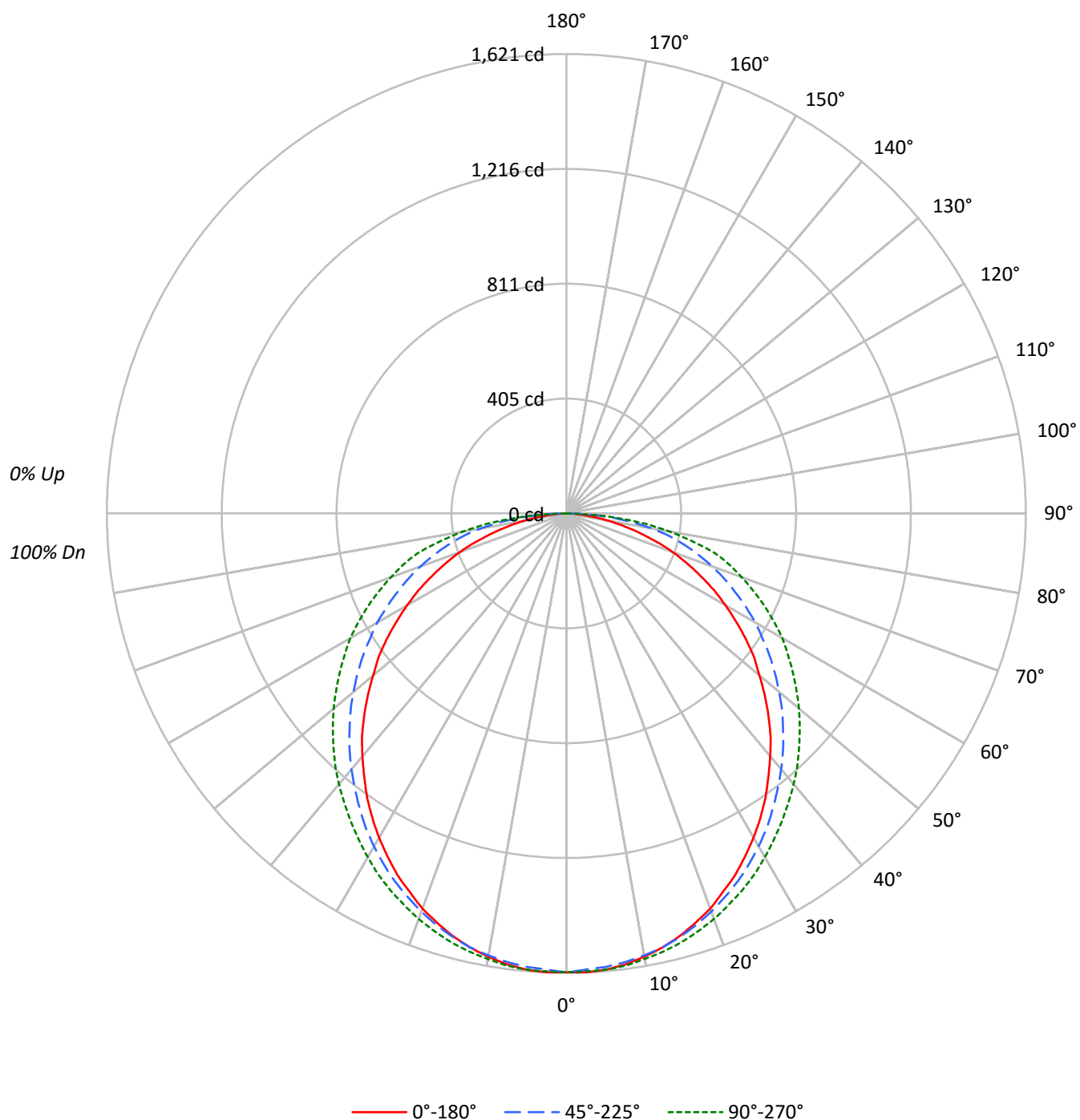
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2178	2178	2178
5°	2182	2169	2182
10°	2170	2163	2181
15°	2151	2155	2182
20°	2125	2141	2181
25°	2091	2125	2179
30°	2052	2108	2176
35°	2012	2087	2178
40°	1965	2071	2191
45°	1918	2058	2210
50°	1861	2052	2243
55°	1815	2056	2289
60°	1744	2073	2367
65°	1664	2095	2453
70°	1576	2159	2589
75°	1406	2252	2828
80°	1199	2385	2890
85°	855	2364	2766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	3.1
10°-20°	438.1	8.9
20°-30°	661.7	13.5
30°-40°	797.5	16.2
40°-50°	837.2	17.1
50°-60°	783.3	16.0
60°-70°	646.9	13.2
70°-80°	440.8	9.0
80°-90°	150.3	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°	1253.0	25.5
0°-40°	2050.5	41.8
0°-60°	3671.1	74.8
0°-90°	4909.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4909.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1619	1619	1619	1619	1619	
5°	1616	1614	1606	1616	1616	153
15°	1544	1546	1547	1564	1567	435
25°	1409	1415	1432	1459	1468	648
35°	1225	1238	1270	1313	1326	765
45°	1008	1029	1082	1140	1161	778
55°	774	805	876	948	976	690
65°	523	567	658	741	770	519
75°	270	332	433	515	544	288
85°	55	109	153	173	179	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1618.9	1618.9	1618.9	1618.9	1618.9
2.5°	1620.6	1618.9	1610.8	1618.9	1617.3
5°	1615.7	1614.1	1605.9	1615.7	1615.7
7.5°	1604.3	1604.3	1596.1	1607.5	1609.2
10°	1588.0	1588.0	1583.1	1596.1	1596.1
12.5°	1568.5	1568.5	1568.5	1581.5	1583.1
15°	1544.0	1545.7	1547.3	1563.6	1566.8
17.5°	1514.7	1518.0	1522.9	1542.4	1545.7
20°	1483.8	1487.0	1495.2	1518.0	1522.9
22.5°	1444.7	1452.8	1464.2	1490.3	1495.2
25°	1408.8	1415.4	1431.6	1459.3	1467.5
27.5°	1364.9	1374.6	1395.8	1425.1	1436.5
30°	1320.9	1330.7	1356.7	1390.9	1400.7
32.5°	1273.7	1288.3	1316.0	1351.8	1363.2
35°	1224.8	1237.8	1270.4	1312.7	1325.8
37.5°	1171.0	1189.0	1224.8	1270.4	1286.7
40°	1118.9	1138.5	1179.2	1228.1	1247.6
42.5°	1066.8	1086.4	1132.0	1187.3	1206.9
45°	1008.2	1029.3	1081.5	1140.1	1161.3
47.5°	949.5	975.6	1032.6	1094.5	1117.3
50°	889.3	918.6	980.5	1045.6	1071.7
52.5°	835.5	863.2	928.4	998.4	1022.8
55°	773.6	804.6	876.3	947.9	975.6
57.5°	710.1	744.3	820.9	899.1	926.7
60°	648.2	685.7	770.4	848.6	879.5
62.5°	588.0	625.4	713.4	794.8	825.8
65°	522.8	566.8	658.0	741.1	770.4
67.5°	460.9	508.2	604.3	685.7	715.0
70°	400.7	446.3	548.9	628.7	658.0
72.5°	335.5	387.6	490.2	573.3	604.3
75°	270.4	332.3	433.2	514.7	544.0
77.5°	210.1	273.6	374.6	441.4	456.0
80°	154.7	219.9	307.8	355.1	373.0
82.5°	99.4	164.5	234.5	268.7	283.4
85°	55.4	109.1	153.1	172.6	179.2
87.5°	22.8	47.2	61.9	70.0	70.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)