

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: P310979

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP250-W2A-U-4000K**

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: P310979
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-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (336) 4000K 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: 4701.0 lumens
Efficiency: N/A
Efficacy: 107.8 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

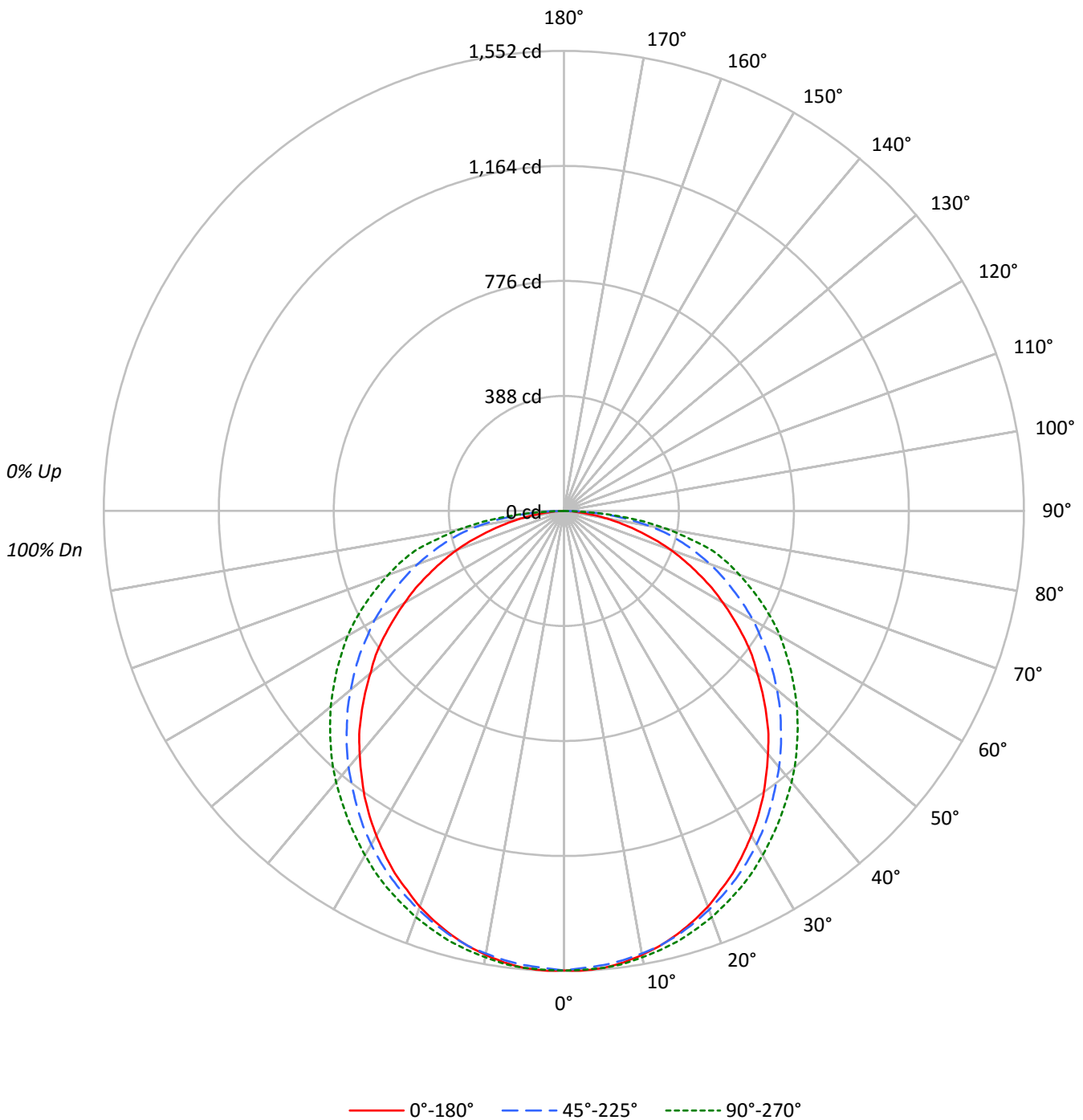
Input Watts (W): 43.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2086	2086	2086
5°	2090	2077	2090
10°	2078	2071	2088
15°	2060	2064	2090
20°	2035	2050	2088
25°	2003	2035	2086
30°	1965	2018	2084
35°	1927	1998	2085
40°	1882	1983	2098
45°	1837	1971	2116
50°	1783	1965	2148
55°	1738	1968	2192
60°	1671	1985	2266
65°	1594	2006	2349
70°	1509	2068	2479
75°	1346	2157	2708
80°	1148	2284	2768
85°	818	2263	2649



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.7	3.1
10°-20°	419.5	8.9
20°-30°	633.7	13.5
30°-40°	763.7	16.2
40°-50°	801.8	17.1
50°-60°	750.1	16.0
60°-70°	619.4	13.2
70°-80°	422.1	9.0
80°-90°	144.0	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°	1199.9	25.5
0°-40°	1963.6	41.8
0°-60°	3515.5	74.8
0°-90°	4701.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4701.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1550	1550	1550	1550	1550	
5°	1547	1546	1538	1547	1547	147
15°	1479	1480	1482	1497	1500	417
25°	1349	1355	1371	1398	1405	621
35°	1173	1185	1217	1257	1270	733
45°	966	986	1036	1092	1112	745
55°	741	770	839	908	934	661
65°	501	543	630	710	738	497
75°	259	318	415	493	521	276
85°	53	104	147	165	172	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1550.3	1550.3	1550.3	1550.3	1550.3
2.5°	1551.9	1550.3	1542.6	1550.3	1548.8
5°	1547.2	1545.7	1537.9	1547.2	1547.2
7.5°	1536.3	1536.3	1528.5	1539.4	1541.0
10°	1520.7	1520.7	1516.0	1528.5	1528.5
12.5°	1502.0	1502.0	1502.0	1514.5	1516.0
15°	1478.6	1480.2	1481.7	1497.3	1500.4
17.5°	1450.5	1453.6	1458.3	1477.0	1480.2
20°	1420.9	1424.0	1431.8	1453.6	1458.3
22.5°	1383.5	1391.3	1402.2	1427.1	1431.8
25°	1349.1	1355.4	1371.0	1397.5	1405.3
27.5°	1307.0	1316.4	1336.7	1364.7	1375.7
30°	1264.9	1274.3	1299.2	1332.0	1341.3
32.5°	1219.7	1233.7	1260.2	1294.6	1305.5
35°	1172.9	1185.4	1216.6	1257.1	1269.6
37.5°	1121.4	1138.6	1172.9	1216.6	1232.2
40°	1071.5	1090.2	1129.2	1176.0	1194.7
42.5°	1021.6	1040.3	1084.0	1137.0	1155.7
45°	965.5	985.7	1035.6	1091.8	1112.1
47.5°	909.3	934.3	988.9	1048.1	1070.0
50°	851.6	879.7	938.9	1001.3	1026.3
52.5°	800.1	826.6	889.0	956.1	979.5
55°	740.9	770.5	839.1	907.7	934.3
57.5°	680.0	712.8	786.1	861.0	887.5
60°	620.8	656.6	737.7	812.6	842.2
62.5°	563.1	598.9	683.2	761.1	790.8
65°	500.7	542.8	630.1	709.7	737.7
67.5°	441.4	486.6	578.7	656.6	684.7
70°	383.7	427.4	525.6	602.0	630.1
72.5°	321.3	371.2	469.5	549.0	578.7
75°	258.9	318.2	414.9	492.9	520.9
77.5°	201.2	262.0	358.7	422.7	436.7
80°	148.2	210.6	294.8	340.0	357.2
82.5°	95.1	157.5	224.6	257.4	271.4
85°	53.0	104.5	146.6	165.3	171.6
87.5°	21.8	45.2	59.3	67.1	67.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)