

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: P310960

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP125-W2A-U-3500K**

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: P310960
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-3500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 3500K 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: 4843.0 lumens
Efficiency: N/A
Efficacy: 111.8 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

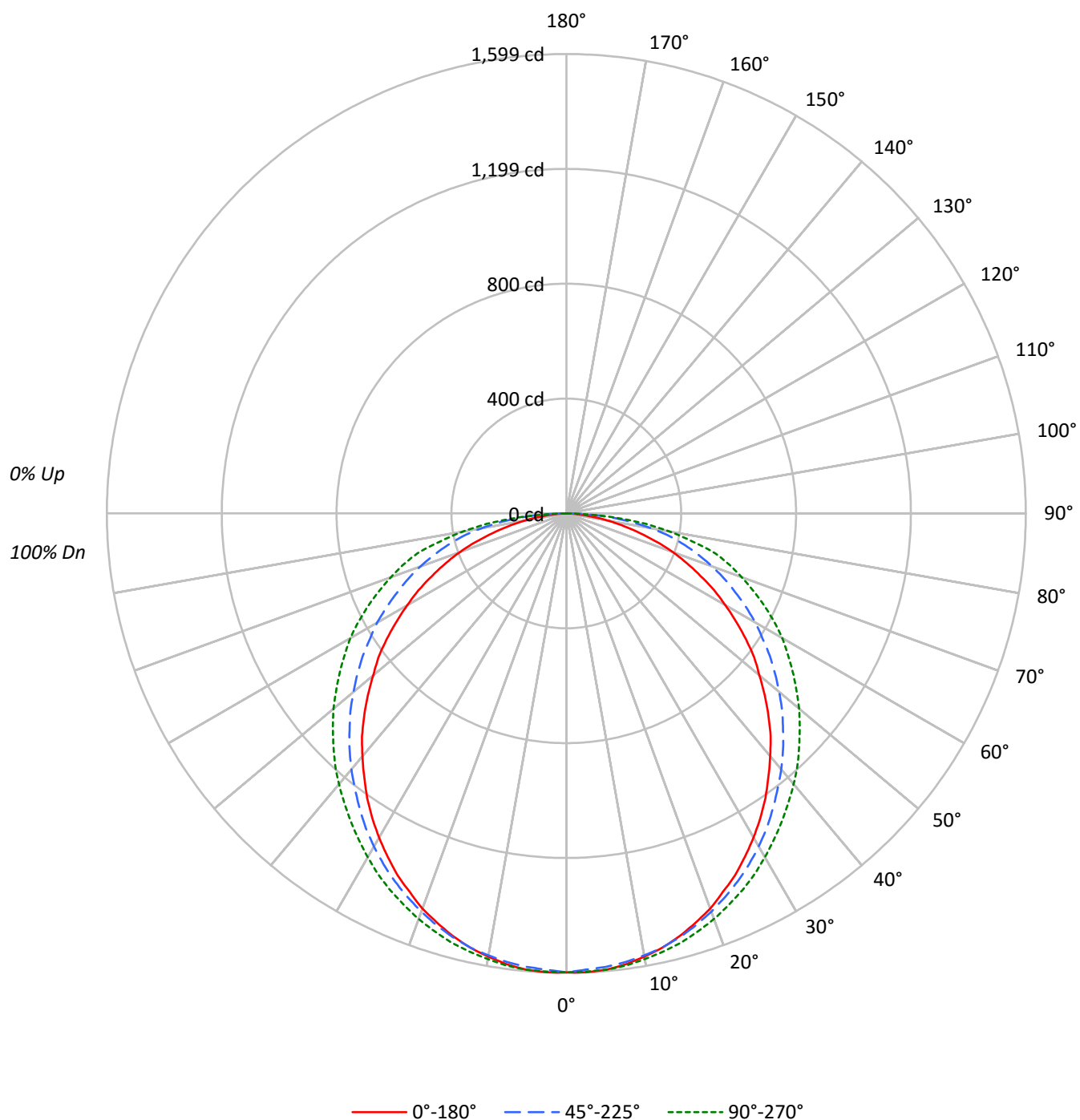
Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
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°	2149	2149	2149
5°	2153	2140	2153
10°	2140	2134	2151
15°	2122	2126	2153
20°	2096	2112	2151
25°	2063	2097	2149
30°	2025	2080	2147
35°	1985	2059	2148
40°	1939	2043	2162
45°	1893	2030	2180
50°	1836	2025	2213
55°	1790	2028	2258
60°	1721	2045	2335
65°	1642	2067	2420
70°	1555	2130	2554
75°	1386	2222	2790
80°	1182	2353	2851
85°	843	2331	2729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.2	3.1
10°-20°	432.2	8.9
20°-30°	652.8	13.5
30°-40°	786.8	16.2
40°-50°	826.0	17.1
50°-60°	772.8	16.0
60°-70°	638.2	13.2
70°-80°	434.9	9.0
80°-90°	148.3	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°	1236.2	25.5
0°-40°	2023.0	41.8
0°-60°	3621.7	74.8
0°-90°	4843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4843.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1597	1597	1597	1597	1597	
5°	1594	1592	1584	1594	1594	151
15°	1523	1525	1526	1542	1546	429
25°	1390	1396	1412	1440	1448	639
35°	1208	1221	1253	1295	1308	755
45°	995	1016	1067	1125	1146	767
55°	763	794	864	935	962	681
65°	516	559	649	731	760	512
75°	267	328	427	508	537	284
85°	55	108	151	170	177	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1597.2	1597.2	1597.2	1597.2	1597.2
2.5°	1598.8	1597.2	1589.1	1597.2	1595.6
5°	1594.0	1592.4	1584.3	1594.0	1594.0
7.5°	1582.7	1582.7	1574.7	1585.9	1587.5
10°	1566.6	1566.6	1561.8	1574.7	1574.7
12.5°	1547.4	1547.4	1547.4	1560.2	1561.8
15°	1523.3	1524.9	1526.5	1542.5	1545.8
17.5°	1494.3	1497.6	1502.4	1521.7	1524.9
20°	1463.8	1467.0	1475.1	1497.6	1502.4
22.5°	1425.2	1433.3	1444.5	1470.2	1475.1
25°	1389.9	1396.3	1412.4	1439.7	1447.7
27.5°	1346.5	1356.2	1377.0	1406.0	1417.2
30°	1303.1	1312.8	1338.5	1372.2	1381.9
32.5°	1256.5	1271.0	1298.3	1333.7	1344.9
35°	1208.3	1221.2	1253.3	1295.1	1308.0
37.5°	1155.3	1173.0	1208.3	1253.3	1269.4
40°	1103.9	1123.2	1163.3	1211.5	1230.8
42.5°	1052.5	1071.7	1116.7	1171.4	1190.7
45°	994.6	1015.5	1066.9	1124.8	1145.7
47.5°	936.8	962.5	1018.7	1079.8	1102.3
50°	877.3	906.2	967.3	1031.6	1057.3
52.5°	824.3	851.6	915.9	985.0	1009.1
55°	763.2	793.8	864.5	935.2	962.5
57.5°	700.6	734.3	809.8	887.0	914.3
60°	639.5	676.5	760.0	837.2	867.7
62.5°	580.1	617.0	703.8	784.1	814.7
65°	515.8	559.2	649.2	731.1	760.0
67.5°	454.7	501.3	596.1	676.5	705.4
70°	395.3	440.3	541.5	620.2	649.2
72.5°	331.0	382.4	483.7	565.6	596.1
75°	266.7	327.8	427.4	507.8	536.7
77.5°	207.3	269.9	369.6	435.4	449.9
80°	152.6	216.9	303.7	350.3	368.0
82.5°	98.0	162.3	231.4	265.1	279.6
85°	54.6	107.7	151.0	170.3	176.8
87.5°	22.5	46.6	61.1	69.1	69.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)