

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: P310959

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP125-W2A-U-3000K**

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: P310959
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-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 3000K 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: 4681.0 lumens
Efficiency: N/A
Efficacy: 109.4 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

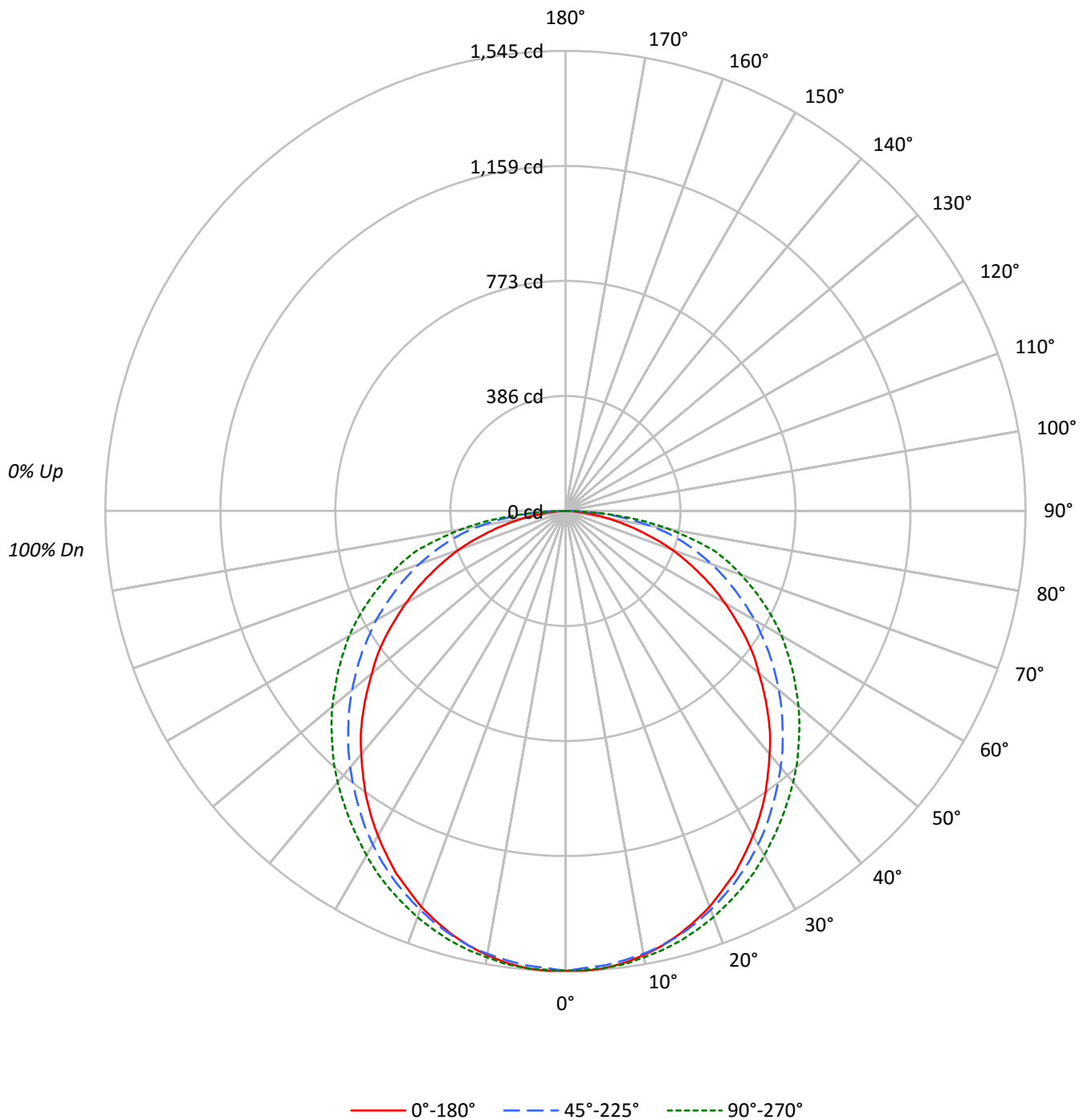
Input Watts (W): 42.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2077	2077	2077
5°	2081	2068	2081
10°	2069	2062	2079
15°	2051	2055	2081
20°	2026	2041	2079
25°	1994	2027	2077
30°	1957	2010	2075
35°	1918	1990	2076
40°	1874	1975	2090
45°	1829	1962	2107
50°	1775	1957	2139
55°	1730	1960	2182
60°	1663	1977	2257
65°	1587	1997	2339
70°	1503	2059	2468
75°	1340	2148	2696
80°	1143	2274	2756
85°	815	2254	2637



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.1	3.1
10°-20°	417.8	8.9
20°-30°	631.0	13.5
30°-40°	760.5	16.2
40°-50°	798.4	17.1
50°-60°	746.9	16.0
60°-70°	616.8	13.2
70°-80°	420.3	9.0
80°-90°	143.3	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°	1194.8	25.5
0°-40°	1955.3	41.8
0°-60°	3500.5	74.8
0°-90°	4681.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4681.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1544	1544	1544	1544	1544	
5°	1541	1539	1531	1541	1541	146
15°	1472	1474	1475	1491	1494	415
25°	1343	1350	1365	1392	1399	618
35°	1168	1180	1211	1252	1264	730
45°	961	982	1031	1087	1107	741
55°	738	767	836	904	930	658
65°	498	540	627	707	735	495
75°	258	317	413	491	519	275
85°	53	104	146	165	171	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1543.8	1543.8	1543.8	1543.8	1543.8
2.5°	1545.3	1543.8	1536.0	1543.8	1542.2
5°	1540.6	1539.1	1531.3	1540.6	1540.6
7.5°	1529.8	1529.8	1522.0	1532.9	1534.4
10°	1514.2	1514.2	1509.6	1522.0	1522.0
12.5°	1495.6	1495.6	1495.6	1508.0	1509.6
15°	1472.3	1473.9	1475.4	1490.9	1494.1
17.5°	1444.4	1447.5	1452.1	1470.8	1473.9
20°	1414.8	1418.0	1425.7	1447.5	1452.1
22.5°	1377.6	1385.3	1396.2	1421.1	1425.7
25°	1343.4	1349.6	1365.1	1391.6	1399.3
27.5°	1301.5	1310.8	1331.0	1358.9	1369.8
30°	1259.5	1268.9	1293.7	1326.3	1335.6
32.5°	1214.5	1228.5	1254.9	1289.0	1299.9
35°	1167.9	1180.3	1211.4	1251.8	1264.2
37.5°	1116.7	1133.7	1167.9	1211.4	1226.9
40°	1067.0	1085.6	1124.4	1171.0	1189.7
42.5°	1017.3	1035.9	1079.4	1132.2	1150.8
45°	961.4	981.5	1031.2	1087.2	1107.3
47.5°	905.4	930.3	984.6	1043.7	1065.4
50°	848.0	875.9	934.9	997.1	1021.9
52.5°	796.7	823.1	885.3	952.0	975.3
55°	737.7	767.2	835.6	903.9	930.3
57.5°	677.1	709.8	782.7	857.3	883.7
60°	618.1	653.8	734.6	809.2	838.7
62.5°	560.7	596.4	680.2	757.9	787.4
65°	498.5	540.5	627.4	706.6	734.6
67.5°	439.5	484.6	576.2	653.8	681.8
70°	382.1	425.5	523.4	599.5	627.4
72.5°	319.9	369.6	467.5	546.7	576.2
75°	257.8	316.8	413.1	490.8	518.7
77.5°	200.3	260.9	357.2	420.9	434.9
80°	147.5	209.7	293.5	338.6	355.7
82.5°	94.7	156.9	223.6	256.3	270.2
85°	52.8	104.1	146.0	164.6	170.8
87.5°	21.7	45.0	59.0	66.8	66.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)