

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: P309615

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CP125-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: P309615
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 3921.0 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

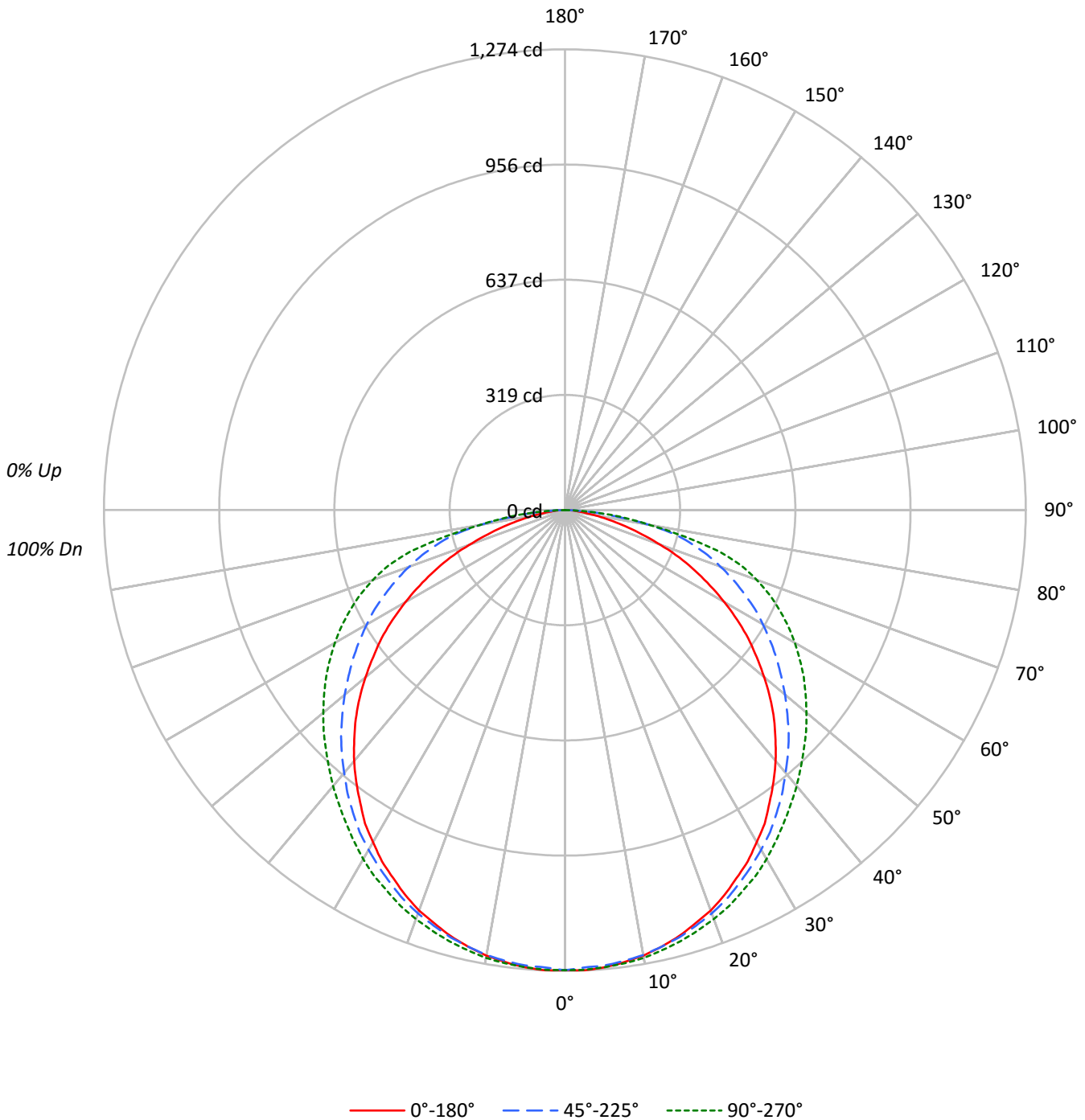
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1712	1712	1712
5°	1714	1707	1714
10°	1709	1707	1718
15°	1699	1703	1719
20°	1688	1699	1723
25°	1667	1691	1725
30°	1647	1686	1732
35°	1620	1677	1734
40°	1591	1666	1750
45°	1556	1665	1777
50°	1505	1663	1824
55°	1452	1675	1891
60°	1369	1701	1975
65°	1265	1740	2085
70°	1104	1802	2222
75°	896	1894	2296
80°	662	1857	1857
85°	506	1368	1545



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.5	3.1
10°-20°	346.1	8.8
20°-30°	526.9	13.4
30°-40°	639.7	16.3
40°-50°	675.9	17.2
50°-60°	637.8	16.3
60°-70°	530.3	13.5
70°-80°	348.9	8.9
80°-90°	95.1	2.4
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°	993.4	25.3
0°-40°	1633.2	41.7
0°-60°	2946.8	75.2
0°-90°	3921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3921.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1272	1272	1272	1272	1272	
5°	1269	1269	1264	1269	1269	121
15°	1220	1221	1223	1234	1234	344
25°	1123	1129	1139	1159	1162	518
35°	986	998	1021	1047	1056	618
45°	818	834	875	918	934	630
55°	619	645	714	781	806	551
65°	397	443	547	627	655	393
75°	172	251	364	432	442	186
85°	33	72	89	98	100	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1272.2	1272.2	1272.2	1272.2	1272.2
2.5°	1273.8	1272.2	1265.6	1272.2	1272.2
5°	1268.9	1268.9	1264.0	1268.9	1268.9
7.5°	1260.7	1260.7	1257.4	1264.0	1264.0
10°	1250.8	1250.8	1249.2	1257.4	1257.4
12.5°	1236.1	1237.7	1236.1	1245.9	1245.9
15°	1219.6	1221.3	1222.9	1234.4	1234.4
17.5°	1198.3	1201.6	1204.9	1218.0	1219.6
20°	1178.6	1180.2	1186.8	1201.6	1203.2
22.5°	1152.3	1157.3	1165.5	1180.2	1185.2
25°	1122.8	1129.4	1139.2	1158.9	1162.2
27.5°	1094.9	1099.8	1112.9	1134.3	1140.9
30°	1060.4	1068.6	1085.0	1106.4	1114.6
32.5°	1027.6	1035.8	1055.5	1078.5	1085.0
35°	986.5	998.0	1021.0	1047.3	1055.5
37.5°	947.2	958.6	986.5	1016.1	1025.9
40°	906.1	919.2	948.8	983.3	996.4
42.5°	861.8	879.9	912.7	950.4	965.2
45°	817.5	833.9	874.9	917.6	934.0
47.5°	769.9	789.6	833.9	884.8	904.5
50°	719.0	743.6	794.5	850.3	871.6
52.5°	668.1	696.0	753.5	815.8	838.8
55°	618.8	645.1	714.1	781.4	806.0
57.5°	564.7	597.5	673.0	745.2	769.9
60°	508.9	545.0	632.0	707.5	733.8
62.5°	453.1	494.1	592.6	668.1	696.0
65°	397.2	443.2	546.6	627.1	655.0
67.5°	343.1	394.0	503.9	584.4	612.3
70°	280.7	344.7	458.0	536.8	564.7
72.5°	223.2	297.1	413.7	487.5	512.2
75°	172.4	251.2	364.4	431.7	441.6
77.5°	126.4	205.2	313.5	336.5	338.2
80°	85.4	164.2	239.7	236.4	239.7
82.5°	55.8	123.1	151.0	169.1	170.7
85°	32.8	72.2	88.6	98.5	100.1
87.5°	16.4	24.6	31.2	32.8	36.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)