

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: METALUX

Report Number: P474177

Luminaire Tested: **24CZ2-70HE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474177
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ RDP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4666.9 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

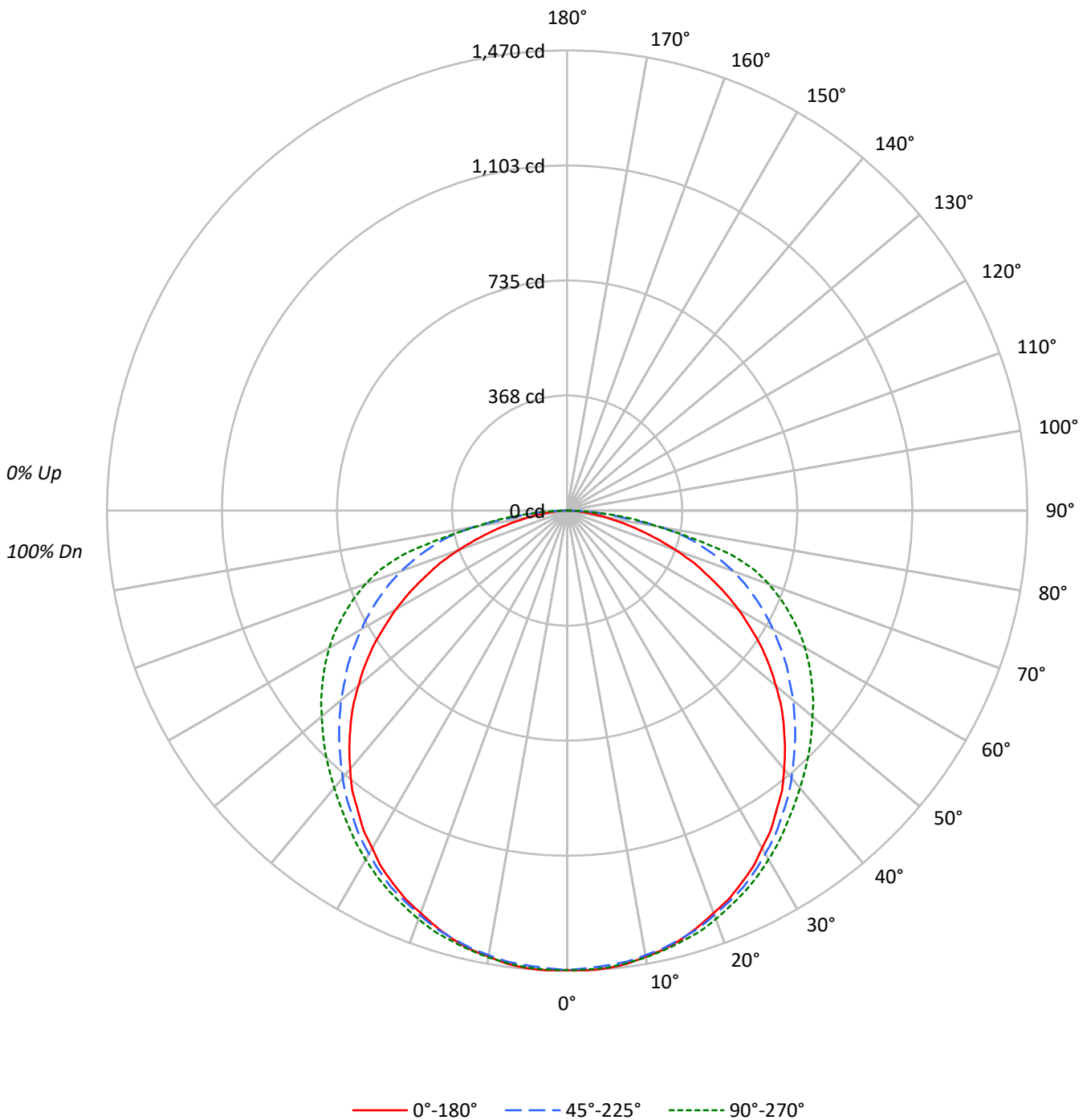
Input Watts (W): 49.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1975	1975	1975
5°	1982	1970	1979
10°	1977	1970	1980
15°	1973	1970	1983
20°	1959	1969	1989
25°	1952	1973	1993
30°	1935	1967	2000
35°	1916	1962	2008
40°	1895	1959	2033
45°	1863	1960	2079
50°	1822	1972	2142
55°	1776	2004	2237
60°	1701	2043	2361
65°	1592	2115	2506
70°	1448	2213	2695
75°	1227	2335	2816
80°	969	2349	2277
85°	715	1788	2002



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.2	3.0
10°-20°	400.7	8.6
20°-30°	612.7	13.1
30°-40°	749.0	16.0
40°-50°	798.3	17.1
50°-60°	763.3	16.4
60°-70°	646.6	13.9
70°-80°	434.6	9.3
80°-90°	122.6	2.6
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°	1152.6	24.7
0°-40°	1901.5	40.7
0°-60°	3463.1	74.2
0°-90°	4666.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4666.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1468	1465	1458	1465	1465	139
15°	1417	1417	1414	1426	1424	399
25°	1315	1319	1329	1340	1343	606
35°	1167	1176	1194	1218	1222	731
45°	979	995	1030	1074	1092	755
55°	757	785	854	921	954	674
65°	500	551	664	752	787	496
75°	236	322	449	526	542	253
85°	46	95	116	125	130	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1467.7	1467.7	1467.7	1467.7	1467.7
2.5°	1470.0	1470.0	1463.0	1467.7	1467.7
5°	1467.7	1465.4	1458.4	1465.4	1465.4
7.5°	1460.7	1458.4	1453.8	1460.7	1458.4
10°	1446.8	1446.8	1442.2	1449.1	1449.1
12.5°	1435.2	1432.9	1430.6	1439.9	1437.6
15°	1416.7	1416.7	1414.4	1426.0	1423.7
17.5°	1393.6	1395.9	1398.2	1407.5	1409.8
20°	1368.1	1372.7	1375.0	1388.9	1388.9
22.5°	1344.9	1347.2	1351.9	1365.8	1365.8
25°	1314.8	1319.4	1328.7	1340.3	1342.6
27.5°	1284.7	1287.0	1298.6	1314.8	1317.1
30°	1245.3	1252.3	1266.2	1284.7	1287.0
32.5°	1210.6	1217.5	1233.7	1252.3	1256.9
35°	1166.6	1175.8	1194.4	1217.5	1222.2
37.5°	1127.2	1134.2	1157.3	1182.8	1189.7
40°	1078.8	1092.5	1115.6	1145.7	1157.3
42.5°	1030.2	1044.1	1071.9	1111.0	1124.9
45°	979.2	995.4	1030.2	1074.2	1092.5
47.5°	928.3	946.8	986.2	1037.1	1058.0
50°	870.4	893.5	942.2	1000.1	1023.2
52.5°	814.8	842.6	895.8	960.7	990.8
55°	756.9	784.7	854.2	921.3	953.7
57.5°	692.0	729.1	805.5	881.9	916.7
60°	632.0	666.6	759.2	842.6	877.3
62.5°	567.2	613.5	712.9	800.9	835.6
65°	500.0	551.0	664.2	752.2	787.0
67.5°	439.8	495.4	615.8	703.6	738.3
70°	368.0	437.5	562.6	650.3	685.1
72.5°	300.9	377.3	507.0	592.7	625.1
75°	236.0	321.7	449.1	525.5	541.7
77.5°	176.0	266.1	388.9	421.3	409.7
80°	125.1	213.1	303.2	287.0	293.9
82.5°	81.1	162.1	187.6	213.1	219.8
85°	46.3	95.0	115.8	125.1	129.7
87.5°	20.8	34.7	46.3	46.3	44.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)