

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: P474373

Luminaire Tested: **24CZ2-50HE-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474373
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50HE-HRP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4037.0 lumens
Efficiency: N/A
Efficacy: 104.6 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

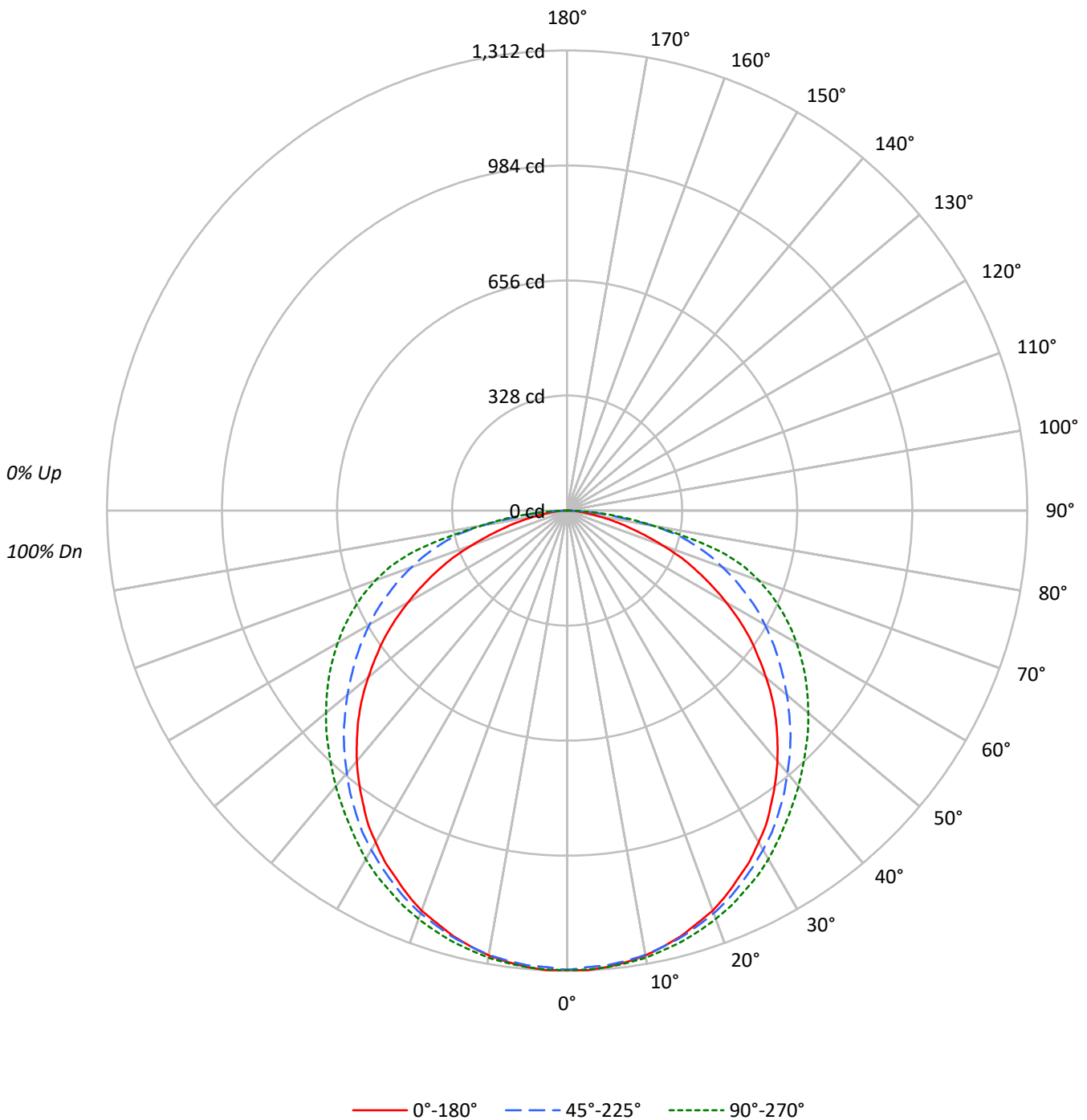
Input Watts (W): 38.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1762	1762	1762
5°	1765	1758	1765
10°	1759	1757	1769
15°	1749	1754	1770
20°	1738	1750	1774
25°	1716	1741	1776
30°	1696	1736	1783
35°	1668	1727	1785
40°	1639	1716	1802
45°	1601	1714	1830
50°	1550	1712	1879
55°	1495	1724	1947
60°	1410	1751	2033
65°	1302	1792	2147
70°	1137	1855	2287
75°	923	1951	2363
80°	681	1912	1912
85°	522	1408	1590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.1	3.1
10°-20°	356.3	8.8
20°-30°	542.4	13.4
30°-40°	658.6	16.3
40°-50°	695.9	17.2
50°-60°	656.6	16.3
60°-70°	546.0	13.5
70°-80°	359.2	8.9
80°-90°	97.9	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°	1022.8	25.3
0°-40°	1681.5	41.7
0°-60°	3034.0	75.2
0°-90°	4037.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4037.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1310	1310	1310	1310	1310	
5°	1306	1306	1301	1306	1306	124
15°	1256	1257	1259	1271	1271	354
25°	1156	1163	1173	1193	1196	533
35°	1016	1028	1051	1078	1087	636
45°	842	859	901	945	962	648
55°	637	664	735	804	830	568
65°	409	456	563	646	674	404
75°	178	259	375	444	455	191
85°	34	74	91	102	103	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1309.8	1309.8	1309.8	1309.8	1309.8
2.5°	1311.5	1309.8	1303.0	1309.8	1309.8
5°	1306.5	1306.5	1301.3	1306.5	1306.5
7.5°	1298.0	1298.0	1294.5	1301.3	1301.3
10°	1287.8	1287.8	1286.2	1294.5	1294.5
12.5°	1272.7	1274.2	1272.7	1282.7	1282.7
15°	1255.7	1257.4	1259.2	1270.9	1270.9
17.5°	1233.8	1237.1	1240.6	1254.0	1255.7
20°	1213.5	1215.1	1221.9	1237.1	1238.9
22.5°	1186.5	1191.5	1200.0	1215.1	1220.3
25°	1155.9	1162.7	1172.9	1193.2	1196.5
27.5°	1127.3	1132.4	1145.9	1167.9	1174.7
30°	1091.8	1100.3	1117.1	1139.1	1147.6
32.5°	1057.9	1066.4	1086.7	1110.3	1117.1
35°	1015.8	1027.6	1051.2	1078.2	1086.7
37.5°	975.2	987.0	1015.8	1046.1	1056.4
40°	932.9	946.4	976.9	1012.3	1025.8
42.5°	887.3	905.8	939.6	978.5	993.8
45°	841.6	858.6	900.8	944.7	961.7
47.5°	792.7	813.0	858.6	911.0	931.3
50°	740.3	765.7	818.0	875.5	897.5
52.5°	687.9	716.6	775.7	839.9	863.7
55°	637.1	664.2	735.1	804.5	829.8
57.5°	581.4	615.3	693.0	767.2	792.7
60°	523.9	561.1	650.7	728.4	755.4
62.5°	466.4	508.8	610.1	687.9	716.6
65°	409.0	456.4	562.9	645.6	674.4
67.5°	353.2	405.6	518.8	601.7	630.4
70°	289.0	354.9	471.5	552.6	581.4
72.5°	229.8	306.0	425.8	502.0	527.3
75°	177.5	258.6	375.2	444.4	454.6
77.5°	130.1	211.3	322.8	346.4	348.1
80°	87.9	169.0	246.8	243.4	246.8
82.5°	57.4	126.8	155.4	174.2	175.7
85°	33.8	74.4	91.2	101.5	103.0
87.5°	16.8	25.3	32.1	33.8	37.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)