

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: P474576

Luminaire Tested: **24CZ2-65HE-SQR-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474576
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-SQR-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6213.2 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

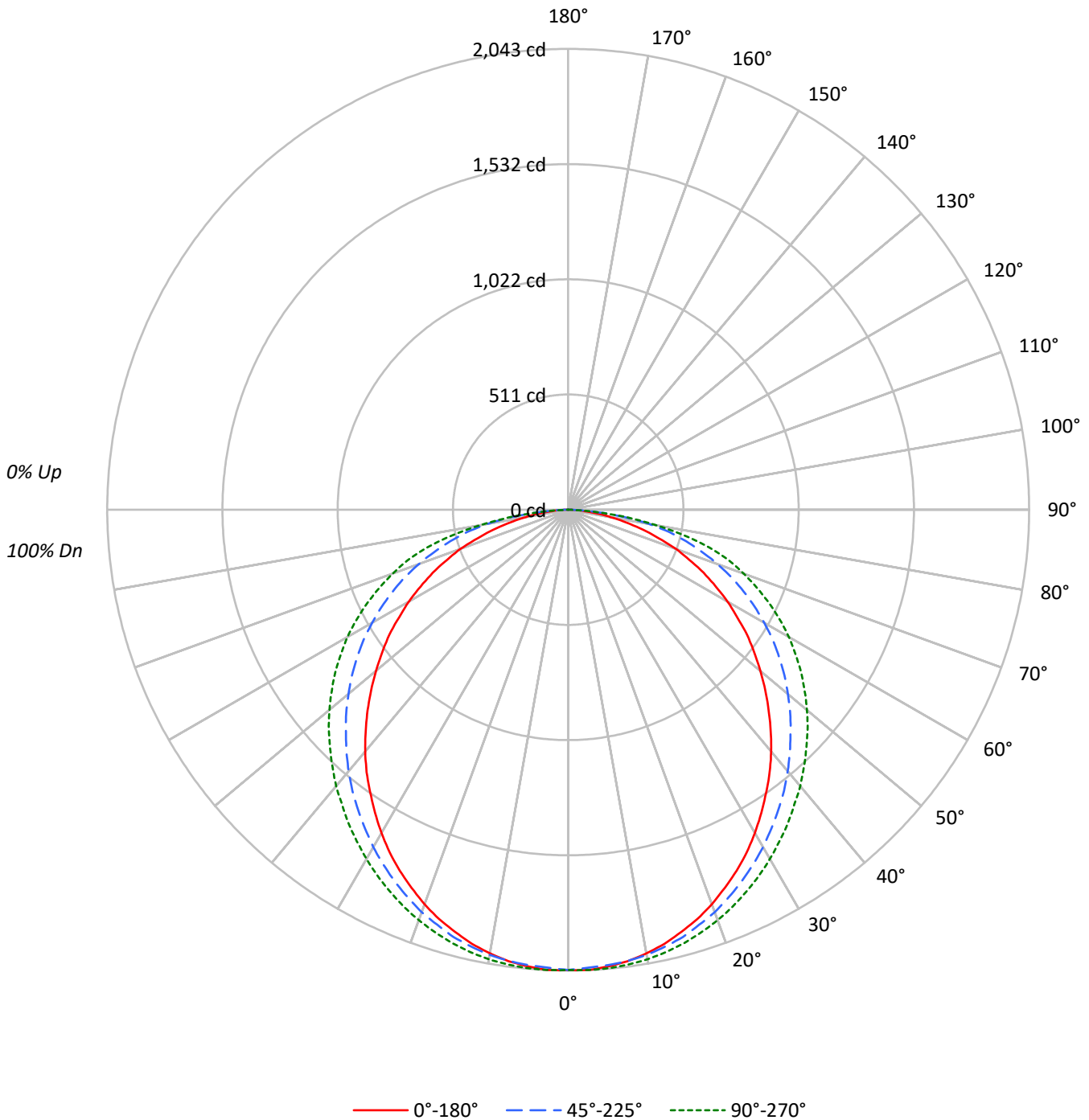
Input Watts (W): 48.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51		62	56	51		60	55	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	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	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°	5492	5492	5492
5°	5491	5475	5513
10°	5457	5476	5531
15°	5398	5464	5539
20°	5330	5438	5546
25°	5243	5399	5547
30°	5142	5367	5555
35°	5025	5335	5576
40°	4917	5317	5621
45°	4783	5304	5681
50°	4654	5319	5784
55°	4545	5355	5914
60°	4391	5395	6079
65°	4216	5461	6264
70°	3998	5537	6513
75°	3581	5614	6729
80°	3016	5630	6107
85°	2238	4261	4014



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.4	3.1
10°-20°	554.3	8.9
20°-30°	839.1	13.5
30°-40°	1015.0	16.3
40°-50°	1071.4	17.2
50°-60°	1010.4	16.3
60°-70°	833.0	13.4
70°-80°	546.5	8.8
80°-90°	150.2	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°	1586.7	25.5
0°-40°	2601.7	41.9
0°-60°	4683.5	75.4
0°-90°	6213.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6213.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2041	2041	2041	2041	2041	
5°	2033	2033	2027	2041	2041	193
15°	1938	1948	1961	1984	1988	547
25°	1766	1788	1818	1856	1868	813
35°	1530	1569	1624	1680	1697	958
45°	1257	1313	1394	1468	1493	970
55°	969	1037	1142	1227	1261	863
65°	662	742	858	949	984	654
75°	344	433	540	625	647	364
85°	72	125	138	134	130	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2040.8	2040.8	2040.8	2040.8	2040.8
2.5°	2042.8	2040.8	2031.9	2043.8	2042.8
5°	2032.9	2032.9	2026.9	2040.8	2040.8
7.5°	2019.0	2020.0	2018.0	2033.9	2033.9
10°	1997.2	2001.1	2004.1	2022.0	2024.0
12.5°	1971.3	1978.3	1984.2	2006.1	2008.1
15°	1937.6	1948.5	1961.4	1984.2	1988.2
17.5°	1902.9	1915.8	1929.7	1959.4	1964.4
20°	1861.2	1876.1	1898.9	1928.7	1936.6
22.5°	1814.5	1835.4	1859.2	1894.9	1904.8
25°	1765.9	1787.7	1818.5	1856.2	1868.1
27.5°	1713.3	1739.1	1773.8	1817.5	1830.4
30°	1654.7	1684.5	1727.2	1773.8	1787.7
32.5°	1593.2	1627.9	1675.5	1727.2	1743.0
35°	1529.6	1569.3	1623.9	1679.5	1697.4
37.5°	1467.1	1506.8	1571.3	1629.9	1646.8
40°	1399.6	1443.3	1513.7	1576.3	1600.1
42.5°	1328.1	1379.7	1454.2	1523.7	1546.5
45°	1256.7	1313.2	1393.6	1468.1	1492.9
47.5°	1184.2	1246.7	1335.1	1410.5	1439.3
50°	1111.7	1178.2	1270.6	1351.9	1381.7
52.5°	1038.3	1107.8	1208.0	1294.4	1321.2
55°	968.8	1037.3	1141.5	1226.9	1260.6
57.5°	888.4	965.8	1076.0	1162.4	1195.1
60°	815.9	891.4	1002.5	1093.9	1129.6
62.5°	737.5	814.9	932.1	1023.4	1058.1
65°	662.1	741.5	857.6	948.9	983.7
67.5°	580.7	664.1	783.2	871.5	905.3
70°	508.2	586.6	703.8	794.1	827.8
72.5°	419.9	509.2	621.4	710.7	747.4
75°	344.4	432.8	540.0	625.4	647.2
77.5°	265.0	353.4	459.6	515.2	530.1
80°	194.6	277.9	363.3	393.1	394.1
82.5°	131.0	204.5	253.1	268.0	266.0
85°	72.5	125.1	138.0	134.0	130.0
87.5°	29.8	41.7	33.7	23.8	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)