

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: A1616668A001

Luminaire Tested: **24CZRK-LD4-50-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: A1616668A001
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (A1616668A001)
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZRK-LD4-50-UNV-L835-CD1-U
Description: 2X4 CRUZE LED RETROFIT, 5000 lum, 35K, U
Light Source: 7S14P
PCB_L-PL-A95-01-A-V2.0E lumens3030E©
Ballast/Driver: OSRAM
OPTOTRONIC OTI 50

Summary

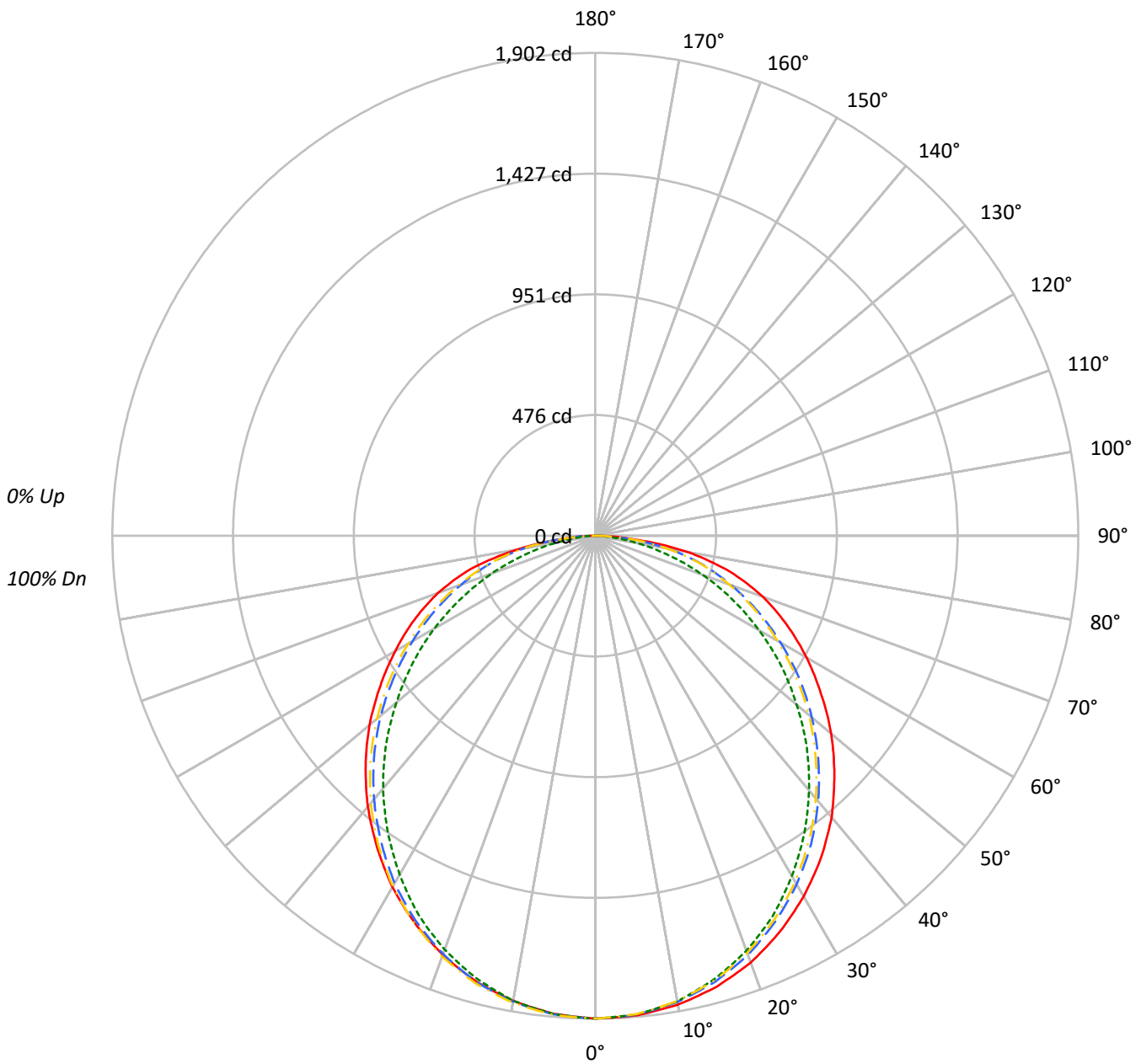
Lumens per Lamp: 5494.066 (1 lamp)
Luminaire Lumens: 5494.1 lumens
Efficiency: 100.0%
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.21 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 46.421
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



— 0°-180° - - 45°-225° - - - 90°-270° - - - 135°-315°



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	2559	2559	2559	2559
5°	2555	2544	2547	2543
10°	2551	2521	2531	2519
15°	2546	2486	2514	2482
20°	2539	2446	2493	2440
25°	2525	2398	2470	2391
30°	2513	2338	2447	2327
35°	2501	2276	2419	2261
40°	2490	2207	2397	2191
45°	2471	2134	2375	2113
50°	2465	2045	2360	2021
55°	2458	1957	2342	1926
60°	2477	1841	2349	1816
65°	2516	1717	2381	1669
70°	2584	1555	2427	1498
75°	2617	1324	2424	1246
80°	2501	1015	2114	928
85°	1721	540	1334	500



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	179.8	3.3	3.3	0°	1902	1902	1902	1902	1902	
10°-20°	513.0	9.3	9.3	5°	1896	1892	1890	1891	1896	180
20°-30°	772.3	14.1	14.1	15°	1840	1809	1817	1806	1840	519
30°-40°	924.3	16.8	16.8	25°	1721	1653	1683	1648	1721	793
40°-50°	955.7	17.4	17.4	35°	1549	1434	1498	1425	1549	970
50°-60°	871.7	15.9	15.9	45°	1331	1178	1279	1166	1331	1029
60°-70°	695.0	12.6	12.6	55°	1085	894	1034	880	1085	972
70°-80°	446.8	8.1	8.1	65°	833	597	788	580	833	825
80°-90°	135.4	2.5	2.5	75°	550	302	510	284	550	573
90°-100°	0.0	0.0	0.0	85°	143	55	111	51	143	179
100°-110°	0.0	0.0	0.0	90°	3	2	2	1	3	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1465.1	26.7	26.7							
0°-40°	2389.4	43.5	43.5							
0°-60°	4216.8	76.8	76.8							
0°-90°	5494.1	100.0	100.0							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	5494.1	100.0	100.0							



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9
5°	1896.0	1895.0	1890.9	1891.9	1889.8	1891.9	1889.8	1890.9	1894.0	1890.9	1895.0
10°	1875.3	1870.1	1858.7	1861.8	1856.6	1864.9	1860.7	1861.8	1865.9	1859.7	1868.0
15°	1840.0	1829.6	1808.8	1808.8	1805.7	1821.3	1817.1	1818.2	1819.2	1805.7	1822.3
20°	1789.1	1773.5	1741.3	1739.3	1735.1	1762.1	1756.9	1754.8	1751.7	1735.1	1757.9
25°	1720.6	1698.8	1655.1	1653.1	1651.0	1685.3	1683.2	1678.0	1669.7	1647.9	1674.9
30°	1640.6	1613.6	1557.5	1548.2	1551.3	1596.0	1598.0	1587.7	1573.1	1540.9	1580.4
35°	1549.2	1516.0	1447.5	1434.0	1436.1	1497.3	1498.4	1483.8	1458.9	1424.6	1472.4
40°	1447.5	1408.0	1322.9	1309.4	1314.6	1388.3	1393.5	1372.7	1338.4	1300.0	1354.0
45°	1331.2	1287.6	1195.2	1177.5	1185.8	1266.8	1279.3	1255.4	1209.7	1166.1	1222.2
50°	1212.8	1164.0	1062.2	1035.2	1052.9	1143.2	1160.9	1130.8	1075.7	1022.8	1089.2
55°	1085.1	1038.4	924.1	894.0	910.6	1013.4	1034.2	998.9	933.5	879.5	953.2
60°	960.5	903.4	780.8	743.5	771.5	884.7	910.6	869.1	793.3	733.1	807.8
65°	832.8	772.5	641.7	597.1	632.4	758.0	788.1	741.4	647.9	580.4	668.7
70°	701.9	638.6	498.4	449.6	492.2	628.2	659.4	611.6	509.8	433.0	524.4
75°	550.3	504.6	366.5	302.2	363.4	500.5	509.8	482.8	384.2	284.5	390.4
80°	368.6	335.4	241.9	168.2	238.8	331.2	311.5	311.5	255.4	153.7	262.7
85°	143.3	135.0	104.9	55.0	105.9	139.1	111.1	135.0	119.4	50.9	111.1
90°	3.1	3.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1	1.0	2.1



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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	1901.9	1901.9
5°	1894.0	1896.0
10°	1868.0	1875.3
15°	1827.5	1840.0
20°	1769.4	1789.1
25°	1694.6	1720.6
30°	1608.4	1640.6
35°	1505.6	1549.2
40°	1397.6	1447.5
45°	1280.3	1331.2
50°	1155.7	1212.8
55°	1024.9	1085.1
60°	894.0	960.5
65°	762.2	832.8
70°	627.2	701.9
75°	486.0	550.3
80°	311.5	368.6
85°	115.3	143.3
90°	3.1	3.1

(END OF REPORT)