

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: A1616668F001

Luminaire Tested: **24CZRK-LD4-50HP-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: A1616668F001
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (A1616668F001)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZRK-LD4-50HP-UNV-L840-CD1-U
Description: 24CRZ RETROFIT DLC Prem 5000 40K 0-10Dim
Light Source: -
Ballast/Driver: -

Summary

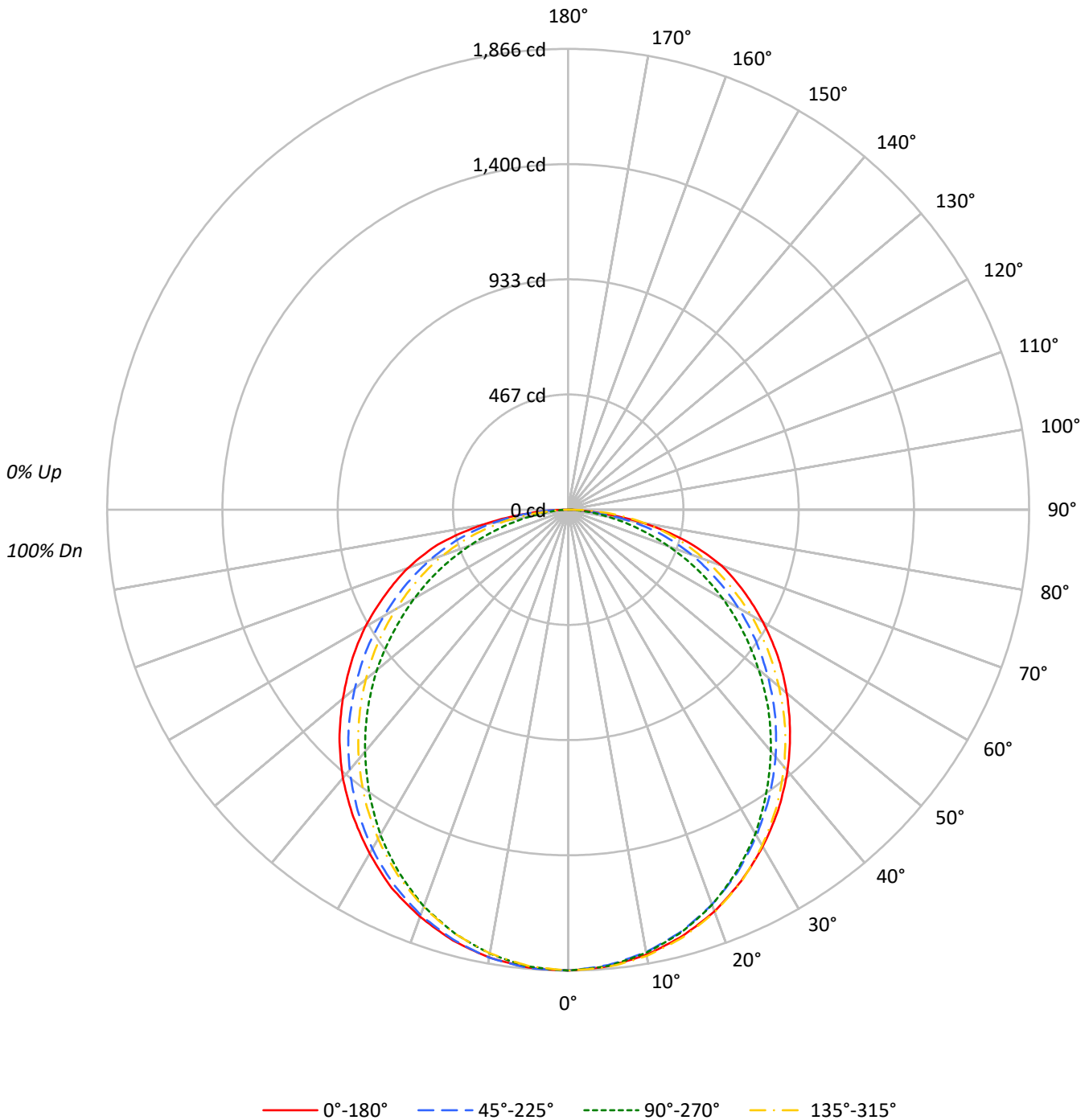
Lumens per Lamp: 5405.663 (1 lamp)
Luminaire Lumens: 5405.4 lumens
Efficiency: 100.0%
Efficacy: 133.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.21 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1m x L: 4m x H: 0.1m)
CIE Type: Direct

Input Watts (W): 40.458
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	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					100			
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57					57			
4	82	69	60	53	79	68	60	53	65	58	52	63	57	52	61	55	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	44	39	37					37			
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32					32			
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29					29			
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	26	51	38	31	26	37	30	25	37	30	25	36	30	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	466	466	466	466
5°	465	461	466	462
10°	462	454	465	455
15°	459	447	464	448
20°	456	437	462	439
25°	452	426	461	427
30°	448	413	457	415
35°	445	399	455	400
40°	441	384	453	385
45°	438	368	452	369
50°	436	350	449	351
55°	436	330	451	329
60°	436	308	454	307
65°	441	283	459	279
70°	451	248	472	242
75°	439	206	483	198
80°	392	150	445	139
85°	197	69	340	65



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	176.4	3.3	3.3	0°	1866	1866	1866	1866	1866	
10°-20°	503.5	9.3	9.3	5°	1856	1854	1861	1857	1856	176
20°-30°	758.6	14.0	14.0	15°	1787	1771	1806	1776	1787	504
30°-40°	908.4	16.8	16.8	25°	1658	1615	1690	1621	1658	765
40°-50°	940.8	17.4	17.4	35°	1483	1399	1517	1403	1483	928
50°-60°	859.9	15.9	15.9	45°	1270	1146	1309	1148	1270	981
60°-70°	686.4	12.7	12.7	55°	1036	866	1071	864	1036	926
70°-80°	440.0	8.1	8.1	65°	785	580	817	573	785	778
80°-90°	131.5	2.4	2.4	75°	497	293	547	281	497	519
90°-100°	0.0	0.0	0.0	85°	88	52	153	49	88	133
100°-110°	0.0	0.0	0.0	90°	2	2	2	2	2	
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°	1438.5	26.6	26.6							
0°-40°	2346.8	43.4	43.4							
0°-60°	4147.5	76.7	76.7							
0°-90°	5405.4	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°	5405.4	100.0	100.0							



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1865.9	1865.9	1865.9	1865.9	1865.9	1865.9	1865.9	1865.9	1865.9	1865.9	1865.9
5°	1855.6	1853.5	1848.3	1854.5	1855.6	1861.8	1860.7	1862.8	1861.8	1856.6	1855.6
10°	1829.6	1823.4	1813.0	1821.3	1827.5	1841.0	1841.0	1842.1	1841.0	1825.4	1826.5
15°	1787.0	1776.6	1760.0	1771.4	1779.8	1805.7	1805.7	1804.7	1798.4	1775.6	1777.7
20°	1730.9	1715.4	1687.3	1702.9	1715.4	1751.7	1753.8	1751.7	1740.3	1709.1	1712.3
25°	1658.3	1639.6	1602.2	1614.7	1636.5	1684.2	1690.5	1684.2	1662.4	1620.9	1631.3
30°	1575.2	1548.2	1499.4	1515.0	1538.9	1601.2	1607.4	1599.1	1572.1	1520.2	1535.7
35°	1482.8	1449.6	1389.3	1398.7	1431.9	1507.7	1517.0	1504.6	1467.2	1402.8	1423.6
40°	1381.0	1342.6	1268.9	1276.1	1315.6	1402.8	1418.4	1399.7	1351.9	1279.3	1305.2
45°	1269.9	1228.4	1142.2	1146.4	1191.0	1291.7	1309.4	1286.5	1228.4	1148.4	1178.5
50°	1154.7	1104.8	1007.2	1006.2	1056.0	1169.2	1190.0	1161.9	1093.4	1011.4	1043.6
55°	1036.3	982.3	872.2	866.0	922.1	1047.7	1070.6	1038.4	959.4	863.9	908.6
60°	909.6	855.6	736.2	723.7	787.1	921.0	948.0	906.5	816.2	719.6	765.3
65°	785.0	724.8	596.0	580.4	645.9	790.2	817.2	777.7	678.0	573.2	628.2
70°	659.4	597.1	463.1	432.0	513.0	662.5	690.5	647.9	542.0	422.6	493.2
75°	497.4	453.8	337.5	292.8	380.0	534.8	547.2	513.0	405.0	281.4	360.3
80°	310.5	281.4	205.6	163.0	259.6	374.8	353.0	343.7	278.3	151.6	235.7
85°	88.3	78.9	69.6	51.9	132.9	190.0	152.6	159.9	137.1	48.8	94.5
90°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1



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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	1865.9	1865.9
5°	1852.4	1855.6
10°	1821.3	1829.6
15°	1774.6	1787.0
20°	1712.3	1730.9
25°	1633.3	1658.3
30°	1543.0	1575.2
35°	1444.4	1482.8
40°	1332.2	1381.0
45°	1215.9	1269.9
50°	1095.5	1154.7
55°	971.9	1036.3
60°	840.0	909.6
65°	713.4	785.0
70°	584.6	659.4
75°	436.1	497.4
80°	262.7	310.5
85°	71.6	88.3
90°	2.1	2.1

(END OF REPORT)