

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: A1616668E001

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: A1616668E001
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (A1616668E001)
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-L835-CD1-U
Description: 24CRZ RETROFIT DLC Prem 5000 35K 0-10Dim
Light Source: -
Ballast/Driver: -

Summary

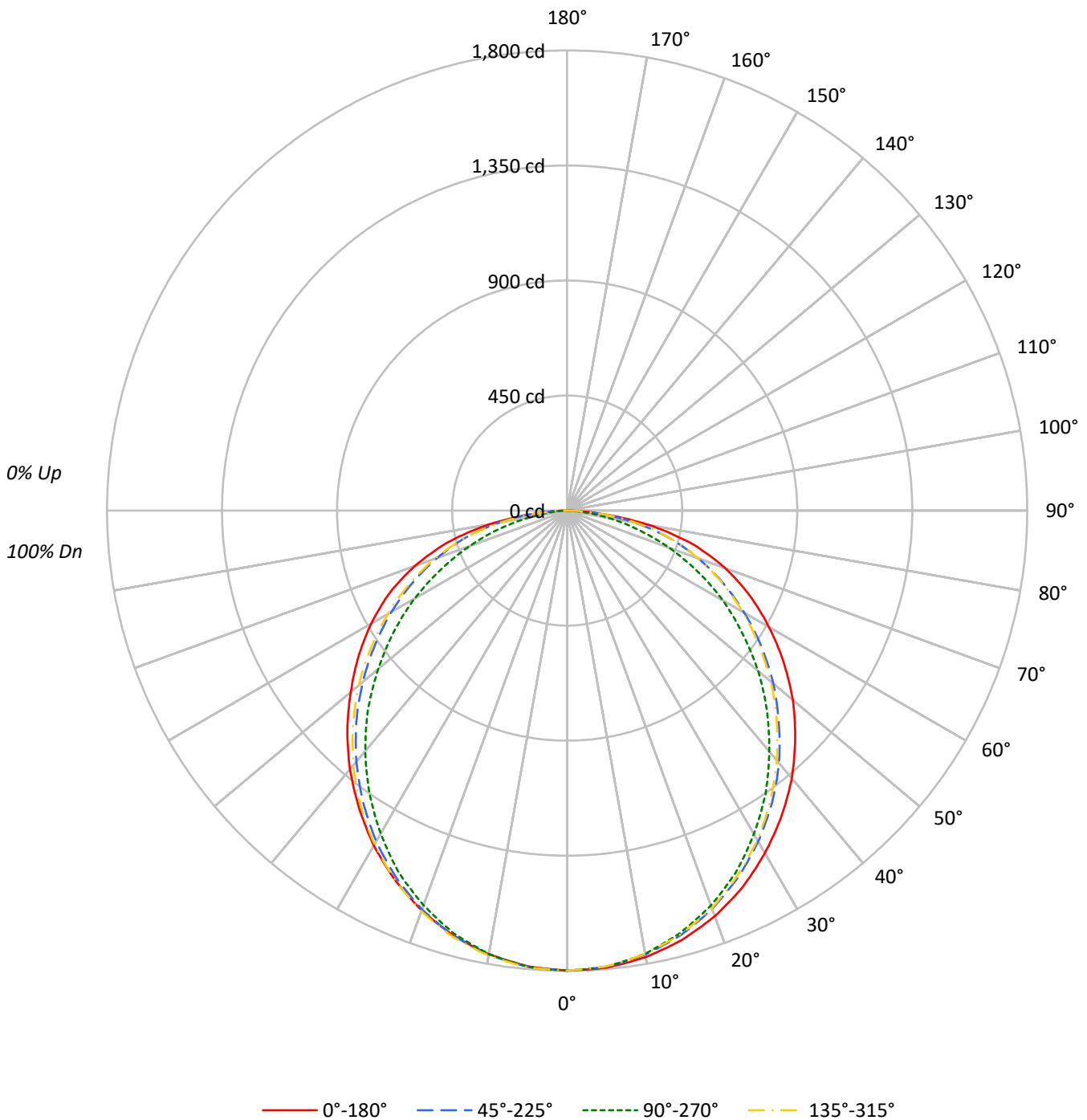
Lumens per Lamp: 5203.294 (1 lamp)
Luminaire Lumens: 5203.2 lumens
Efficiency: 100.0%
Efficacy: 129.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.21 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 1m x L: 4m x H: 0.1m)
CIE Type: Direct

Input Watts (W): 40.108
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	41	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°	450	450	450	450
5°	449	445	448	445
10°	448	439	445	439
15°	447	431	442	432
20°	445	422	439	422
25°	443	412	435	411
30°	440	399	431	398
35°	438	386	426	385
40°	437	370	423	370
45°	435	355	419	354
50°	435	339	417	335
55°	435	319	419	316
60°	437	300	424	294
65°	443	274	431	265
70°	450	243	434	232
75°	450	200	429	190
80°	410	147	388	130
85°	257	69	250	63



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	170.1	3.3	3.3	0°	1800	1800	1800	1800	1800	
10°-20°	485.3	9.3	9.3	5°	1794	1790	1789	1790	1794	171
20°-30°	730.1	14.0	14.0	15°	1738	1710	1721	1712	1738	491
30°-40°	873.4	16.8	16.8	25°	1625	1562	1594	1561	1625	749
40°-50°	903.6	17.4	17.4	35°	1461	1353	1419	1349	1461	915
50°-60°	827.4	15.9	15.9	45°	1262	1105	1216	1102	1262	975
60°-70°	663.9	12.8	12.8	55°	1033	836	997	829	1033	925
70°-80°	424.2	8.2	8.2	65°	789	562	768	544	789	780
80°-90°	125.3	2.4	2.4	75°	510	284	486	270	510	529
90°-100°	0.0	0.0	0.0	85°	115	52	112	47	115	152
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°	1385.5	26.6	26.6							
0°-40°	2258.8	43.4	43.4							
0°-60°	3989.9	76.7	76.7							
0°-90°	5203.2	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°	5203.2	100.0	100.0							



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1799.5	1799.5	1799.5	1799.5	1799.5	1799.5	1799.5	1799.5	1799.5	1799.5	1799.5
5°	1794.3	1793.2	1788.1	1790.1	1788.1	1790.1	1789.1	1790.1	1792.2	1790.1	1793.2
10°	1773.5	1768.3	1757.9	1760.0	1755.9	1765.2	1762.1	1762.1	1766.3	1761.1	1767.3
15°	1738.2	1728.9	1709.1	1710.2	1707.1	1723.7	1720.6	1719.5	1722.6	1712.3	1725.8
20°	1688.4	1672.8	1643.7	1643.7	1642.7	1667.6	1664.5	1662.4	1658.3	1642.7	1662.4
25°	1625.0	1603.2	1561.7	1561.7	1558.6	1593.9	1593.9	1586.6	1580.4	1560.7	1585.6
30°	1547.2	1522.2	1468.2	1461.0	1465.1	1510.8	1512.9	1501.5	1485.9	1458.9	1495.2
35°	1461.0	1429.8	1363.4	1353.0	1355.1	1416.3	1419.4	1402.8	1381.0	1348.8	1392.4
40°	1367.5	1330.1	1249.1	1230.5	1240.8	1310.4	1321.8	1299.0	1265.8	1228.4	1280.3
45°	1261.6	1218.0	1123.5	1104.8	1118.3	1200.3	1215.9	1187.9	1144.3	1101.7	1155.7
50°	1152.6	1105.9	998.9	975.0	993.7	1084.0	1104.8	1072.6	1013.4	964.6	1030.1
55°	1033.2	985.4	870.1	835.9	860.8	969.8	996.8	953.2	882.6	828.6	897.1
60°	911.7	862.9	738.3	704.0	731.0	856.6	885.7	836.9	750.7	689.5	768.4
65°	789.2	737.2	610.6	561.8	603.3	735.2	768.4	719.6	614.7	544.1	638.6
70°	658.3	605.4	483.9	423.7	477.6	611.6	634.4	591.9	489.1	405.0	503.6
75°	509.8	474.5	352.0	284.5	357.2	476.6	486.0	455.8	369.7	270.0	373.8
80°	325.0	306.3	226.4	159.9	231.6	314.6	307.4	295.9	243.0	141.2	241.9
85°	115.3	119.4	95.5	51.9	101.8	132.9	112.1	122.5	110.1	46.7	103.8
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°	1799.5	1799.5
5°	1792.2	1794.3
10°	1768.3	1773.5
15°	1726.8	1738.2
20°	1672.8	1688.4
25°	1601.2	1625.0
30°	1519.1	1547.2
35°	1425.7	1461.0
40°	1320.8	1367.5
45°	1212.8	1261.6
50°	1098.6	1152.6
55°	976.1	1033.2
60°	852.5	911.7
65°	725.8	789.2
70°	598.1	658.3
75°	452.7	509.8
80°	285.5	325.0
85°	97.6	115.3
90°	2.1	2.1

(END OF REPORT)