

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: A1616677E001

Luminaire Tested: **22CZRK-LD4-34HP-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: A1616677E001  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA ( A1616677E001)  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZRK-LD4-34HP-UNV-L835-CD1-U  
Description: 22CRZ RETROFIT DLC Prem 3400 35K 0-10Dim  
Light Source: 7S23P CCT:3500K CRI:80  
PCB\_L-PL-A94-05-A-V2.0E lumens3030E©  
Ballast/Driver: OSRAM  
OPTOTRONIC OTI 30

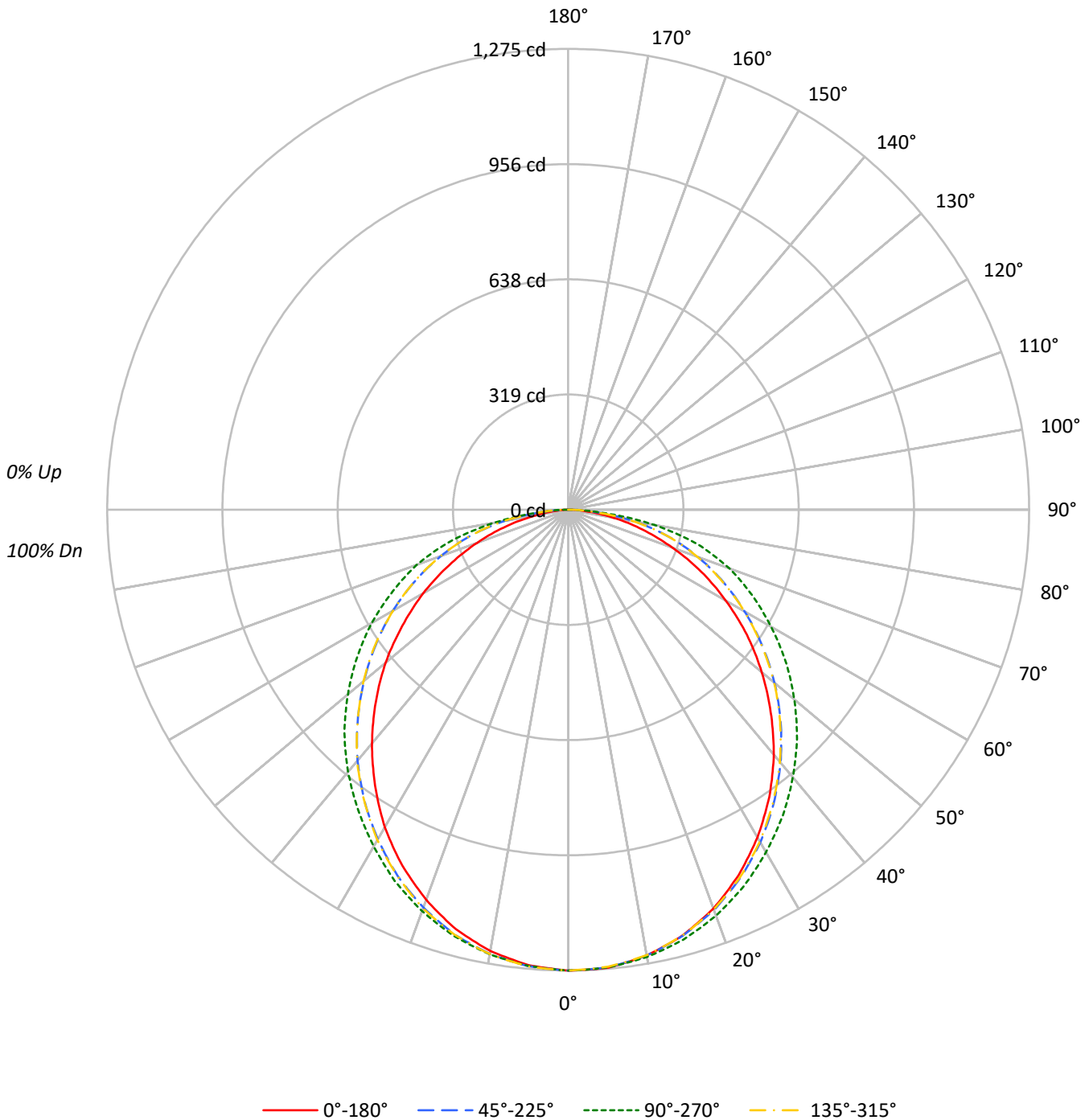
**Summary**

Lumens per Lamp: 3663.907 (1 lamp)  
Luminaire Lumens: 3663.9 lumens  
Efficiency: 100.0%  
Efficacy: 132.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 27.741  
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	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	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	69	64	60	57
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	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	45	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	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°	3431	3431	3431	3431
5°	3421	3418	3401	3407
10°	3392	3403	3358	3383
15°	3354	3385	3303	3357
20°	3303	3361	3230	3324
25°	3236	3335	3151	3290
30°	3161	3305	3064	3249
35°	3078	3283	2956	3216
40°	2983	3259	2846	3193
45°	2872	3244	2728	3172
50°	2761	3225	2605	3143
55°	2642	3219	2451	3124
60°	2494	3209	2294	3107
65°	2335	3231	2090	3081
70°	2119	3282	1853	3082
75°	1865	3257	1547	2957
80°	1516	2921	1103	2494
85°	959	1754	591	1346



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	120.5	3.3	3.3	0°	1275	1275	1275	1275	1275	
10°-20°	343.7	9.4	9.4	5°	1272	1271	1265	1267	1272	121
20°-30°	516.6	14.1	14.1	15°	1220	1232	1201	1221	1220	344
30°-40°	617.5	16.9	16.9	25°	1115	1150	1086	1134	1115	514
40°-50°	638.7	17.4	17.4	35°	970	1034	931	1013	970	606
50°-60°	583.5	15.9	15.9	45°	792	895	753	875	792	612
60°-70°	464.4	12.7	12.7	55°	603	735	560	713	603	539
70°-80°	294.2	8.0	8.0	65°	406	562	363	536	406	401
80°-90°	84.8	2.3	2.3	75°	213	372	176	338	213	226
90°-100°	0.0	0.0	0.0	85°	49	89	30	68	49	62
100°-110°	0.0	0.0	0.0	90°	4	1	2	2	4	
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°	980.8	26.8	26.8							
0°-40°	1598.3	43.6	43.6							
0°-60°	2820.5	77.0	77.0							
0°-90°	3663.9	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°	3663.9	100.0	100.0							



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**CANDELA DISTRIBUTION (FULL):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1
5°	1272.0	1272.0	1269.9	1271.0	1268.9	1269.9	1264.7	1266.8	1268.9	1266.8	1268.9
10°	1252.3	1253.3	1251.2	1256.4	1252.3	1250.2	1239.8	1245.0	1251.2	1249.1	1250.2
15°	1220.1	1220.1	1222.2	1231.5	1223.2	1217.0	1201.4	1209.7	1223.2	1221.1	1221.1
20°	1174.4	1176.5	1180.6	1195.2	1181.7	1171.3	1148.4	1160.9	1181.7	1181.7	1181.7
25°	1115.2	1119.4	1130.8	1149.5	1131.8	1115.2	1086.1	1102.7	1131.8	1133.9	1129.7
30°	1046.7	1055.0	1070.6	1094.4	1070.6	1049.8	1014.5	1033.2	1072.6	1075.7	1070.6
35°	969.8	980.2	1002.0	1034.2	1004.1	971.9	931.4	957.4	1008.2	1013.4	1005.1
40°	884.7	899.2	928.3	966.7	931.4	889.9	844.2	875.3	936.6	947.0	933.5
45°	792.3	812.0	850.4	895.1	854.6	802.7	752.8	789.2	857.7	875.3	853.5
50°	698.8	719.6	770.5	816.2	774.6	712.3	659.4	695.7	778.8	795.4	775.7
55°	603.3	628.2	682.2	735.2	686.4	617.8	559.7	605.4	692.6	713.4	692.6
60°	503.6	531.6	596.0	647.9	600.2	524.4	463.1	515.0	605.4	627.2	602.2
65°	406.0	440.3	506.7	561.8	507.8	434.0	363.4	420.5	514.0	535.8	511.9
70°	306.3	348.9	413.3	474.5	419.5	339.5	267.9	329.2	419.5	445.5	420.5
75°	212.9	255.4	319.8	371.7	325.0	251.3	176.5	236.7	325.0	337.5	320.9
80°	125.6	166.1	204.6	241.9	203.5	158.9	91.4	144.3	210.8	206.6	209.7
85°	48.8	71.6	75.8	89.3	76.8	64.4	30.1	57.1	75.8	68.5	75.8
90°	4.2	3.1	2.1	1.0	2.1	2.1	2.1	2.1	3.1	2.1	3.1



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**CANDELA DISTRIBUTION (continued):**

	330°	360°
0°	1275.1	1275.1
5°	1267.8	1272.0
10°	1247.1	1252.3
15°	1212.8	1220.1
20°	1166.1	1174.4
25°	1106.9	1115.2
30°	1040.4	1046.7
35°	961.5	969.8
40°	882.6	884.7
45°	792.3	792.3
50°	701.9	698.8
55°	610.6	603.3
60°	516.1	503.6
65°	425.7	406.0
70°	331.2	306.3
75°	240.9	212.9
80°	150.6	125.6
85°	63.3	48.8
90°	2.1	4.2

(END OF REPORT)