

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: A1616677F001

Luminaire Tested: **22CZRK-LD4-34HP-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: A1616677F001
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (A1616677F001)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZRK-LD4-34HP-UNV-L840-CD1-U
Description: 22CRZ RETROFIT DLC Prem 3400 40K 0-10Dim
Light Source: -
Ballast/Driver: -

Summary

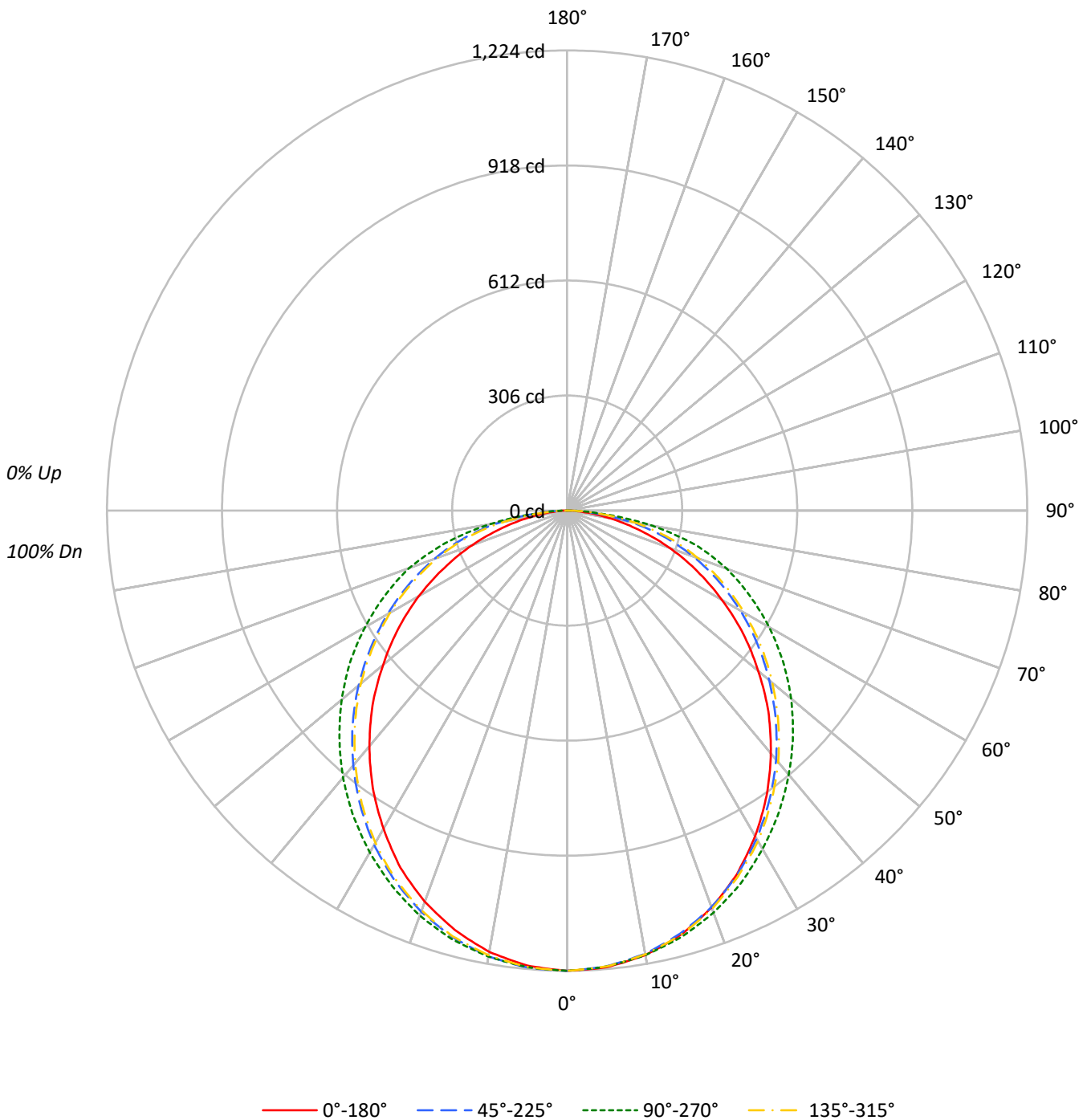
Lumens per Lamp: 3533.483 (1 lamp)
Luminaire Lumens: 3533.5 lumens
Efficiency: 100.0%
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')
CIE Type: Direct

Input Watts (W): 27.758
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	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	79	70	63	87	77	69	63	74	67	62	71	65	61	69	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	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	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	62	50	41	35	48	41	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	39	31	26	38	30	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	3294	3294	3294	3294
5°	3278	3273	3267	3278
10°	3251	3251	3229	3263
15°	3211	3229	3174	3246
20°	3160	3201	3113	3224
25°	3097	3173	3043	3197
30°	3020	3139	2951	3170
35°	2937	3115	2861	3147
40°	2842	3091	2758	3126
45°	2744	3079	2653	3105
50°	2621	3073	2527	3093
55°	2505	3069	2401	3087
60°	2356	3075	2258	3075
65°	2197	3081	2072	3076
70°	2004	3125	1860	3096
75°	1719	3103	1556	2948
80°	1367	2733	1178	2520
85°	796	1672	713	1346



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	115.7	3.3	3.3	0°	1224	1224	1224	1224	1224	
10°-20°	330.0	9.3	9.3	5°	1219	1217	1215	1219	1219	116
20°-30°	496.6	14.1	14.1	15°	1168	1174	1155	1181	1168	329
30°-40°	594.0	16.8	16.8	25°	1067	1093	1049	1102	1067	491
40°-50°	615.0	17.4	17.4	35°	925	981	901	992	925	579
50°-60°	563.4	15.9	15.9	45°	757	849	732	857	757	583
60°-70°	450.5	12.7	12.7	55°	572	701	548	705	572	511
70°-80°	285.9	8.1	8.1	65°	382	536	360	535	382	379
80°-90°	82.4	2.3	2.3	75°	196	354	178	336	196	210
90°-100°	0.0	0.0	0.0	85°	40	85	36	68	40	53
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°	942.3	26.7	26.7							
0°-40°	1536.3	43.5	43.5							
0°-60°	2714.7	76.8	76.8							
0°-90°	3533.5	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°	3533.5	100.0	100.0							



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1224.2	1224.2	1224.2	1224.2	1224.2	1224.2	1224.2	1224.2	1224.2	1224.2	1224.2
5°	1219.0	1218.0	1214.9	1217.0	1215.9	1218.0	1214.9	1219.0	1221.1	1219.0	1219.0
10°	1200.3	1198.3	1195.2	1200.3	1197.2	1199.3	1192.0	1200.3	1207.6	1204.5	1203.5
15°	1168.2	1165.0	1164.0	1174.4	1169.2	1167.1	1154.7	1168.2	1181.7	1180.6	1178.5
20°	1123.5	1121.4	1123.5	1138.0	1129.7	1124.5	1106.9	1123.5	1147.4	1146.4	1142.2
25°	1067.4	1065.4	1073.7	1093.4	1079.9	1068.5	1048.7	1069.5	1101.7	1101.7	1096.5
30°	999.9	1001.0	1014.5	1039.4	1024.9	1006.2	977.1	1007.2	1046.7	1049.8	1040.4
35°	925.2	928.3	949.1	981.3	957.4	934.5	901.3	933.5	984.4	991.6	976.1
40°	843.1	850.4	879.5	916.9	888.8	857.7	818.2	854.6	915.8	927.3	905.5
45°	757.0	764.2	804.7	849.4	816.2	772.5	732.0	771.5	843.1	856.6	831.7
50°	663.5	677.0	725.8	777.7	738.3	686.4	639.6	684.3	764.2	782.9	754.9
55°	572.1	588.8	646.9	700.9	659.4	600.2	548.3	592.9	684.3	705.0	672.9
60°	475.6	497.4	565.9	620.9	578.4	509.8	455.8	505.7	598.1	620.9	589.8
65°	382.1	410.2	478.7	535.8	493.2	423.7	360.3	415.3	513.0	534.8	502.6
70°	289.7	320.9	392.5	451.7	405.0	336.4	268.9	328.1	423.7	447.5	411.2
75°	196.2	234.7	297.0	354.1	313.6	249.2	177.6	239.9	328.1	336.4	316.7
80°	113.2	150.6	185.9	226.4	202.5	164.1	97.6	149.5	217.0	208.7	197.3
85°	40.5	60.2	68.5	85.1	80.0	69.6	36.3	66.5	84.1	68.5	64.4
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°	1224.2	1224.2
5°	1218.0	1219.0
10°	1198.3	1200.3
15°	1167.1	1168.2
20°	1121.4	1123.5
25°	1066.4	1067.4
30°	999.9	999.9
35°	928.3	925.2
40°	848.3	843.1
45°	764.2	757.0
50°	678.0	663.5
55°	585.6	572.1
60°	498.4	475.6
65°	407.0	382.1
70°	320.9	289.7
75°	231.6	196.2
80°	140.2	113.2
85°	53.0	40.5
90°	2.1	2.1

(END OF REPORT)