

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: A1616677A001

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: A1616677A001
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (A1616677A001)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZRK-LD4-34-UNV-L835-CD1-U
Description: 2X2 CRUZE LED RETROFIT, 3400 lum, 35K, U
Light Source: -
Ballast/Driver: -

Summary

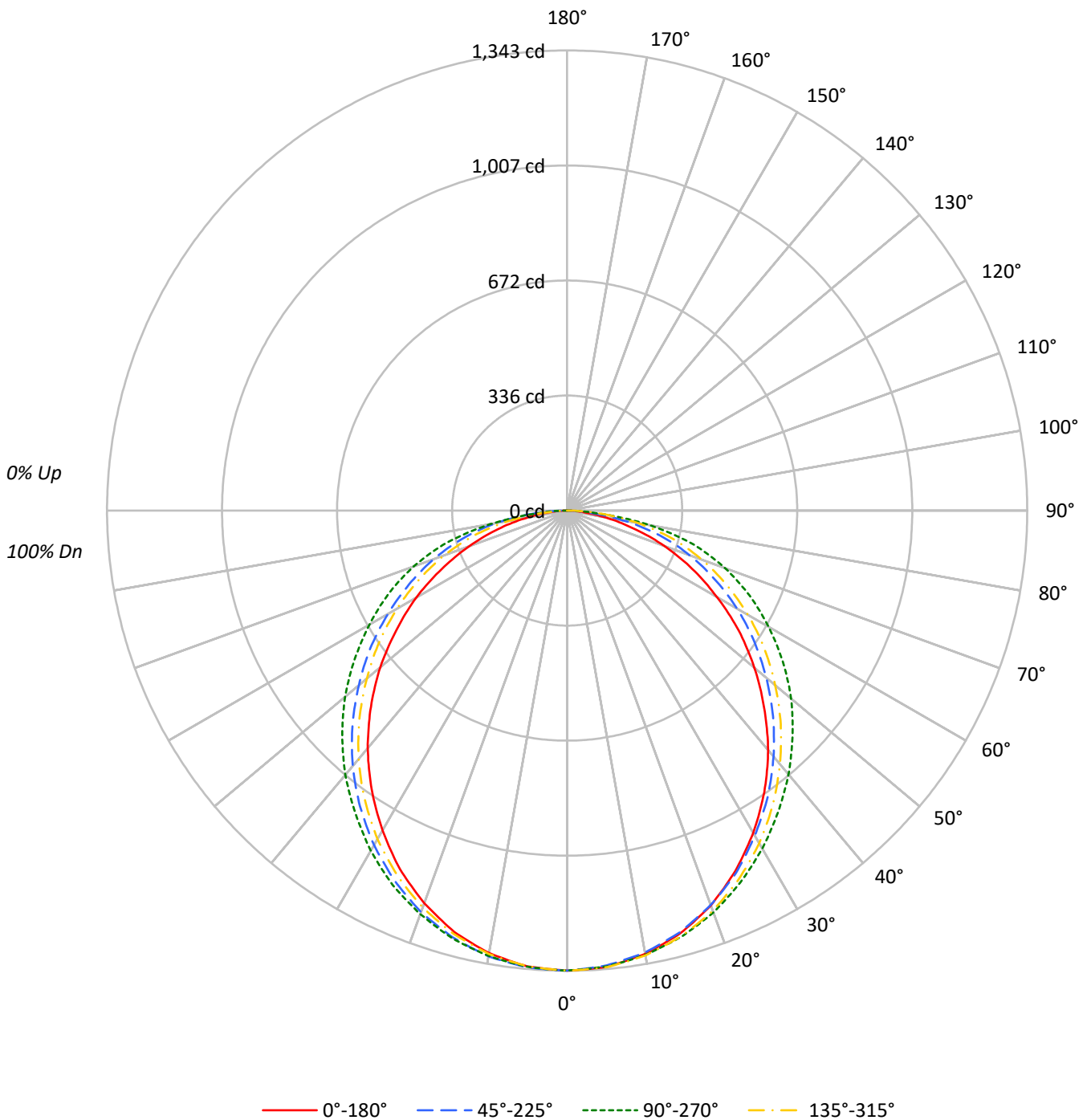
Lumens per Lamp: 3852.558 (1 lamp)
Luminaire Lumens: 3852.3 lumens
Efficiency: 100.0%
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')
CIE Type: Direct

Input Watts (W): 31.875
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	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	3613	3613	3613	3613
5°	3594	3591	3591	3594
10°	3558	3566	3552	3575
15°	3511	3540	3500	3554
20°	3449	3510	3428	3525
25°	3368	3474	3350	3498
30°	3280	3440	3255	3462
35°	3184	3408	3157	3421
40°	3077	3389	3053	3396
45°	2947	3372	2935	3365
50°	2819	3372	2814	3344
55°	2678	3365	2665	3315
60°	2499	3364	2520	3302
65°	2317	3380	2323	3308
70°	2083	3390	2104	3304
75°	1747	3348	1829	3203
80°	1329	2946	1416	2733
85°	694	1652	939	1531



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	126.9	3.3	3.3	0°	1343	1343	1343	1343	1343	
10°-20°	361.7	9.4	9.4	5°	1336	1335	1335	1336	1336	127
20°-30°	543.5	14.1	14.1	15°	1277	1288	1273	1293	1277	360
30°-40°	649.4	16.9	16.9	25°	1161	1197	1155	1206	1161	535
40°-50°	671.0	17.4	17.4	35°	1003	1074	995	1078	1003	627
50°-60°	613.1	15.9	15.9	45°	813	930	810	928	813	628
60°-70°	488.7	12.7	12.7	55°	612	768	608	757	612	546
70°-80°	309.6	8.0	8.0	65°	403	588	404	575	403	399
80°-90°	88.5	2.3	2.3	75°	199	382	209	366	199	214
90°-100°	0.0	0.0	0.0	85°	35	84	48	78	35	50
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°	1032.1	26.8	26.8							
0°-40°	1681.5	43.6	43.6							
0°-60°	2965.6	77.0	77.0							
0°-90°	3852.3	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°	3852.3	100.0	100.0							



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6	1342.6
5°	1336.4	1333.3	1331.2	1335.3	1336.4	1338.4	1335.3	1336.4	1339.5	1336.4	1336.4
10°	1313.5	1310.4	1308.3	1316.6	1316.6	1319.8	1311.4	1317.7	1324.9	1319.8	1317.7
15°	1277.2	1272.0	1275.1	1287.6	1286.5	1285.5	1273.0	1282.4	1296.9	1292.8	1287.6
20°	1226.3	1222.2	1227.3	1248.1	1245.0	1240.8	1219.0	1235.6	1258.5	1253.3	1244.0
25°	1160.9	1160.9	1172.3	1197.2	1190.0	1182.7	1154.7	1175.4	1207.6	1205.5	1192.0
30°	1086.1	1086.1	1103.8	1139.1	1128.7	1114.2	1077.8	1105.9	1148.4	1146.4	1130.8
35°	1003.1	1009.3	1032.1	1073.7	1059.1	1035.2	994.8	1028.0	1079.9	1077.8	1057.1
40°	912.7	918.9	955.3	1005.1	981.3	950.1	905.5	942.8	1004.1	1007.2	979.2
45°	813.0	825.5	874.3	930.4	902.3	860.8	809.9	852.5	920.0	928.3	893.0
50°	713.4	726.9	789.2	853.5	821.3	764.2	712.3	753.8	833.8	846.3	805.8
55°	611.6	630.3	703.0	768.4	736.2	669.7	608.5	657.3	745.5	757.0	716.5
60°	504.6	533.7	612.6	679.1	643.8	575.3	508.8	556.6	651.1	666.6	625.1
65°	402.9	436.1	515.0	587.7	548.3	478.7	403.9	460.0	557.6	575.3	530.6
70°	301.1	341.6	419.5	490.1	452.7	384.2	304.2	365.5	463.1	477.6	432.0
75°	199.4	246.1	315.7	382.1	349.9	289.7	208.7	267.9	363.4	365.5	331.2
80°	110.1	148.5	185.9	244.0	227.4	190.0	117.3	175.5	246.1	226.4	203.5
85°	35.3	51.9	55.0	84.1	93.5	91.4	47.8	83.1	108.0	77.9	60.2
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°	1342.6	1342.6
5°	1333.3	1336.4
10°	1310.4	1313.5
15°	1271.0	1277.2
20°	1221.1	1226.3
25°	1156.7	1160.9
30°	1083.0	1086.1
35°	1003.1	1003.1
40°	914.8	912.7
45°	821.3	813.0
50°	720.6	713.4
55°	623.0	611.6
60°	521.3	504.6
65°	423.7	402.9
70°	330.2	301.1
75°	231.6	199.4
80°	137.1	110.1
85°	43.6	35.3
90°	2.1	2.1

(END OF REPORT)