

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: A1616677G001

Luminaire Tested: **22CZRK-LD4-24HP-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: A1616677G001  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA ( A1616677G001)  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZRK-LD4-24HP-UNV-L835-CD1-U  
Description: 22CRZ RETROFIT DLC Prem 2400 35K 0-10Dim  
Light Source: 7S17P CCT:3500K CRI:80  
PCB\_L-PL-A94-04-A-V2.0E lumens3030E©  
Ballast/Driver: OSRAM  
OPTOTRONIC OTI 30

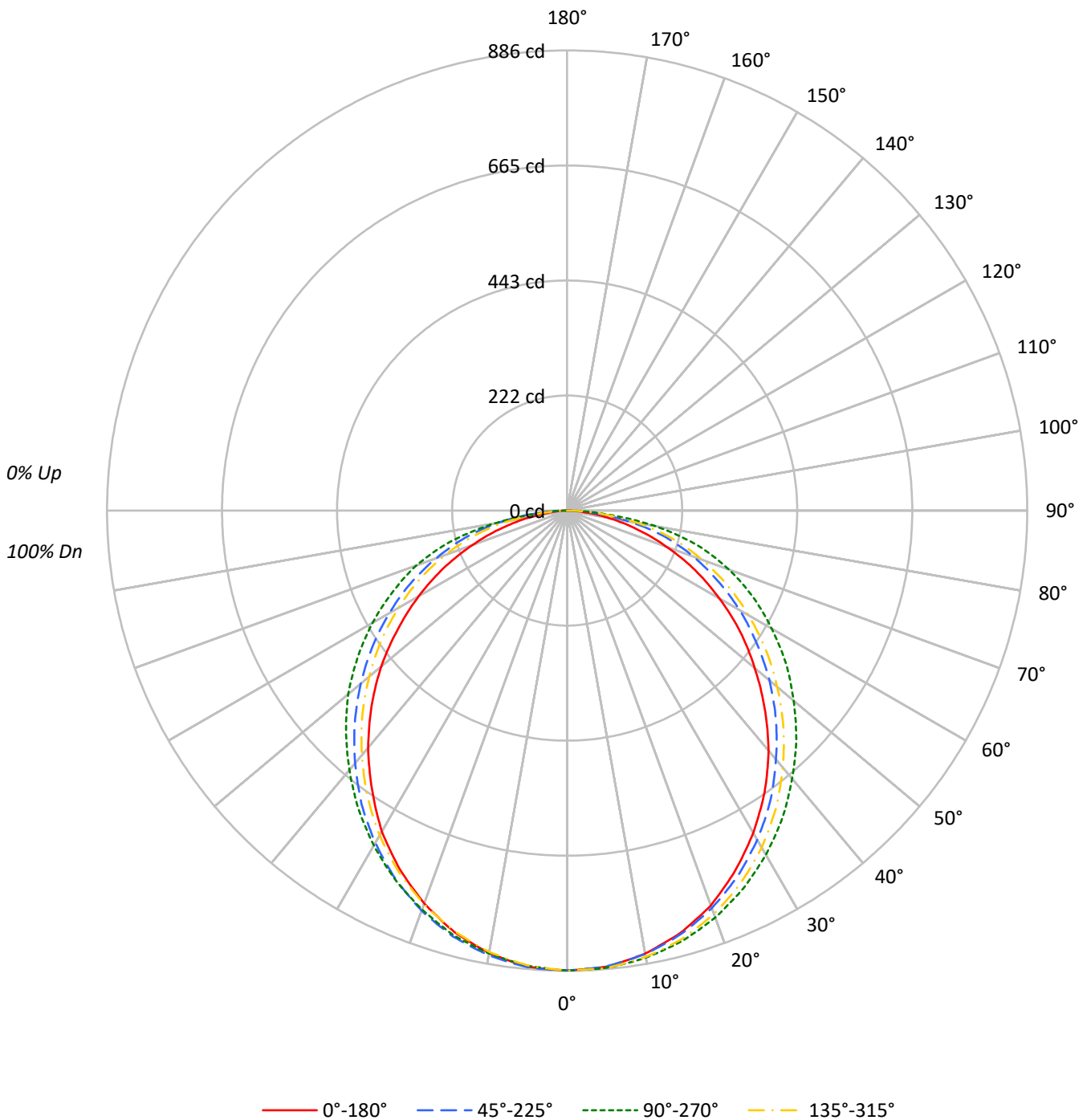
**Summary**

Lumens per Lamp: 2545.257 (1 lamp)  
Luminaire Lumens: 2545.3 lumens  
Efficiency: 100.0%  
Efficacy: 130.6 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): 19.484  
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	68
3	89	79	70	63	87	77	69	63	74	67	62	71	65	61	69	64	60	57
4	82	69	60	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	44	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°	2383	2383	2383	2383
5°	2371	2376	2371	2365
10°	2346	2368	2343	2346
15°	2315	2358	2309	2327
20°	2275	2345	2263	2298
25°	2221	2329	2212	2275
30°	2164	2311	2155	2248
35°	2103	2294	2080	2225
40°	2034	2272	2009	2198
45°	1950	2262	1931	2183
50°	1862	2248	1846	2174
55°	1782	2255	1741	2155
60°	1677	2253	1635	2145
65°	1565	2275	1511	2132
70°	1408	2291	1343	2140
75°	1219	2293	1137	2056
80°	966	2081	840	1705
85°	572	1285	489	918



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	83.7	3.3	3.3	0°	886	886	886	886	886	
10°-20°	238.8	9.4	9.4	5°	882	884	882	880	882	84
20°-30°	359.0	14.1	14.1	15°	842	858	840	846	842	237
30°-40°	428.9	16.8	16.8	25°	765	803	762	784	765	353
40°-50°	442.7	17.4	17.4	35°	662	723	655	701	662	414
50°-60°	404.5	15.9	15.9	45°	538	624	533	602	538	415
60°-70°	322.9	12.7	12.7	55°	407	515	398	492	407	363
70°-80°	205.2	8.1	8.1	65°	272	396	263	371	272	269
80°-90°	59.6	2.3	2.3	75°	139	262	130	235	139	148
90°-100°	0.0	0.0	0.0	85°	29	65	25	47	29	38
100°-110°	0.0	0.0	0.0	90°	2	1	2	1	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°	681.5	26.8	26.8							
0°-40°	1110.4	43.6	43.6							
0°-60°	1957.6	76.9	76.9							
0°-90°	2545.3	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°	2545.3	100.0	100.0							



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**CANDELA DISTRIBUTION (FULL):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	885.6	885.6	885.6	885.6	885.6	885.6	885.6	885.6	885.6	885.6	885.6
5°	881.6	880.5	880.5	883.6	883.6	883.6	881.6	882.6	882.6	879.5	879.5
10°	866.0	866.0	868.1	874.3	873.3	872.2	865.0	869.1	870.1	866.0	865.0
15°	842.1	842.1	847.3	857.7	855.6	852.5	840.0	846.3	851.5	846.3	842.1
20°	808.9	811.0	818.2	833.8	829.6	823.4	804.7	815.1	824.5	817.2	813.0
25°	765.3	769.4	784.0	802.7	797.5	785.0	762.2	774.6	790.2	784.0	776.7
30°	716.5	722.7	741.4	765.3	758.0	740.4	713.4	727.9	749.7	744.5	734.1
35°	662.5	669.7	694.7	722.7	710.2	690.5	655.2	676.0	704.0	700.9	687.4
40°	603.3	610.6	640.7	673.9	659.4	632.4	596.0	617.8	652.1	652.1	633.4
45°	537.9	550.3	586.7	624.1	605.4	572.1	532.7	557.6	599.1	602.2	580.4
50°	471.4	487.0	529.6	569.0	549.3	506.7	467.3	494.3	543.1	550.3	522.3
55°	407.0	421.6	469.3	515.0	489.1	444.4	397.7	428.8	487.0	492.2	467.3
60°	338.5	357.2	410.2	454.8	428.8	378.0	330.2	364.5	425.7	433.0	406.0
65°	272.1	291.8	347.9	395.6	366.5	314.6	262.7	302.2	364.5	370.7	344.7
70°	203.5	230.5	285.5	331.2	301.1	251.3	194.2	236.7	300.1	309.4	280.4
75°	139.1	170.3	220.1	261.7	235.7	186.9	129.8	173.4	235.7	234.7	213.9
80°	80.0	107.0	136.0	172.4	153.7	122.5	69.6	112.1	156.8	141.2	132.9
85°	29.1	43.6	49.8	65.4	63.3	54.0	24.9	50.9	63.3	46.7	39.5
90°	2.1	2.1	2.1	1.0	2.1	3.1	2.1	3.1	2.1	1.0	2.1



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**CANDELA DISTRIBUTION (continued):**

	330°	360°
0°	885.6	885.6
5°	878.5	881.6
10°	860.8	866.0
15°	834.8	842.1
20°	799.5	808.9
25°	758.0	765.3
30°	710.2	716.5
35°	654.2	662.5
40°	596.0	603.3
45°	535.8	537.9
50°	472.5	471.4
55°	407.0	407.0
60°	344.7	338.5
65°	282.4	272.1
70°	218.1	203.5
75°	154.7	139.1
80°	92.4	80.0
85°	33.2	29.1
90°	1.0	2.1

(END OF REPORT)