

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: P475291

Luminaire Tested: **22CZ2-34HE-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475291  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-34HE-SQR-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3316.6 lumens  
Efficiency: N/A  
Efficacy: 136.5 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

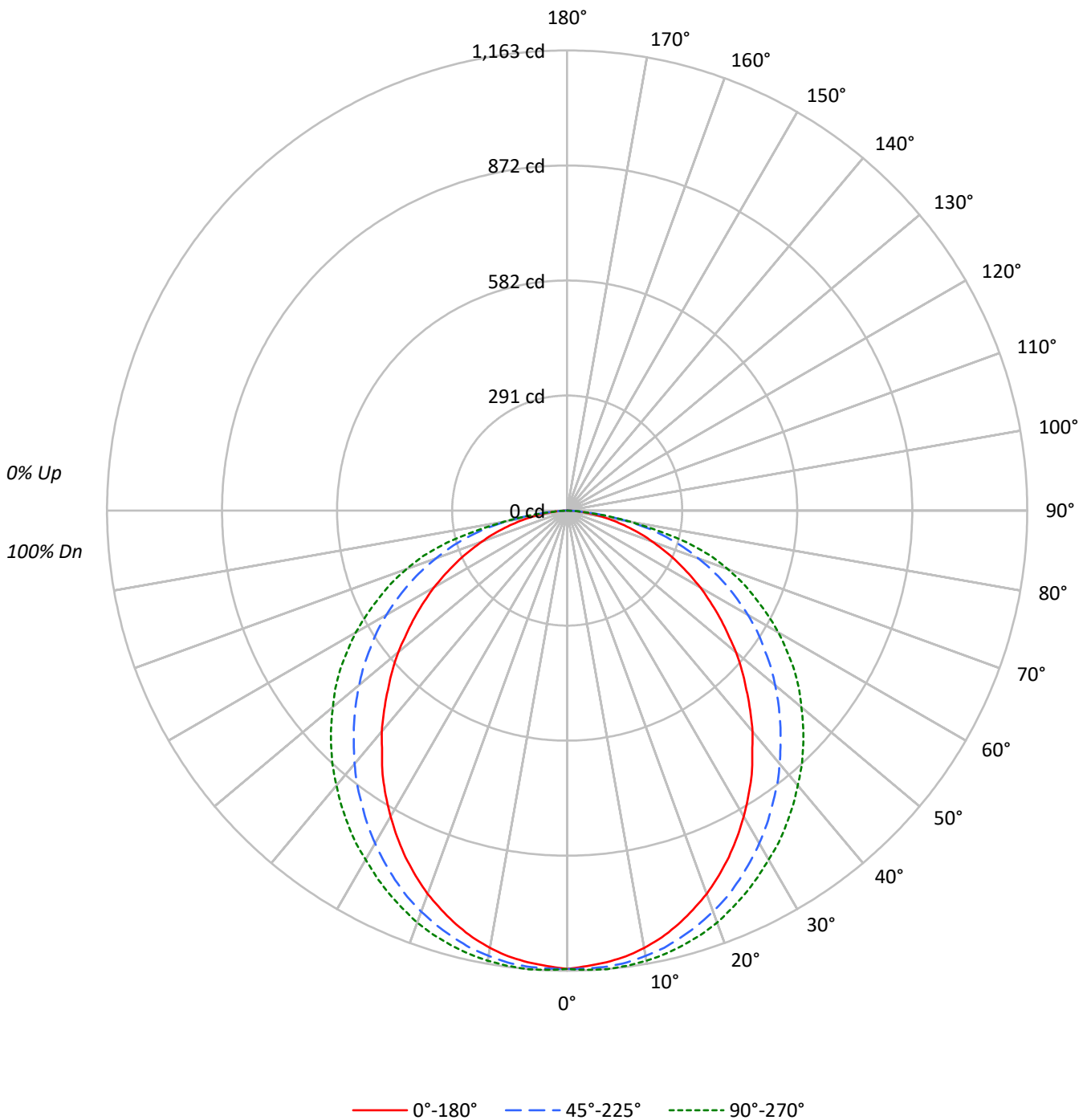
Input Watts (W): 24.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91		93	91	88		90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62		72	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3117	3117	3117
5°	3096	3125	3143
10°	3067	3123	3157
15°	3017	3109	3166
20°	2952	3088	3174
25°	2870	3057	3169
30°	2773	3018	3165
35°	2673	2973	3175
40°	2560	2936	3185
45°	2438	2900	3211
50°	2333	2873	3236
55°	2208	2851	3287
60°	2093	2838	3321
65°	1954	2816	3347
70°	1795	2774	3393
75°	1621	2700	3273
80°	1390	2391	2464
85°	1118	1408	1118



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.8	3.3
10°-20°	314.0	9.5
20°-30°	471.7	14.2
30°-40°	562.5	17.0
40°-50°	581.6	17.5
50°-60°	534.7	16.1
60°-70°	425.7	12.8
70°-80°	260.1	7.8
80°-90°	56.5	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	895.5	27.0
0°-40°	1458.1	44.0
0°-60°	2574.4	77.6
0°-90°	3316.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3316.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1158	1158	1158	1158	1158	
5°	1146	1149	1157	1162	1163	109
15°	1083	1096	1116	1132	1137	305
25°	967	990	1030	1058	1067	445
35°	814	848	905	952	967	508
45°	641	686	762	823	844	495
55°	471	523	608	677	701	421
65°	307	359	442	504	526	304
75°	156	202	260	305	315	166
85°	36	44	46	39	36	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1158.5	1158.5	1158.5	1158.5	1158.5
2.5°	1152.3	1153.8	1158.5	1161.8	1161.8
5°	1146.0	1149.1	1157.0	1161.8	1163.4
7.5°	1136.6	1141.3	1152.3	1158.5	1160.3
10°	1122.5	1128.7	1142.8	1152.3	1155.4
12.5°	1105.0	1114.5	1131.9	1144.4	1147.6
15°	1083.1	1095.6	1116.0	1131.9	1136.6
17.5°	1057.8	1073.5	1098.8	1117.8	1124.0
20°	1031.0	1046.9	1078.4	1100.3	1108.2
22.5°	999.7	1020.0	1056.3	1081.5	1087.8
25°	966.6	990.1	1029.5	1057.8	1067.2
27.5°	930.3	958.7	1001.2	1035.9	1043.7
30°	892.5	922.5	971.3	1009.1	1018.5
32.5°	853.2	887.8	939.7	982.2	995.0
35°	813.8	848.5	905.1	952.5	966.6
37.5°	768.2	809.1	872.2	920.9	938.2
40°	728.8	768.2	835.9	889.4	906.8
42.5°	684.7	727.2	798.1	856.3	876.9
45°	640.7	686.3	761.9	823.4	843.8
47.5°	599.7	645.4	724.1	788.7	809.1
50°	557.2	604.4	686.3	752.5	772.9
52.5°	511.6	563.5	648.5	714.7	738.4
55°	470.7	522.6	607.6	676.9	700.6
57.5°	428.2	481.6	569.9	636.0	658.1
60°	388.8	440.7	527.4	591.9	617.1
62.5°	346.3	399.8	484.8	547.8	571.5
65°	306.9	359.0	442.3	503.8	525.7
67.5°	267.6	319.6	398.2	456.5	481.6
70°	228.2	280.3	352.6	409.3	431.3
72.5°	193.7	239.3	308.5	360.6	380.9
75°	155.9	201.5	259.7	305.4	314.8
77.5°	121.2	162.2	210.9	231.3	234.6
80°	89.7	121.2	154.3	159.0	159.0
82.5°	59.7	83.4	96.0	97.5	96.0
85°	36.2	44.1	45.6	39.4	36.2
87.5°	12.5	12.5	7.8	4.7	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)