

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: P474670

Luminaire Tested: **24CZ2-35HE-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474670  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35HE-SQR-UNV-L840-CD1-U  
Description: 2'X4' 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: 3567.5 lumens  
Efficiency: N/A  
Efficacy: 132.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

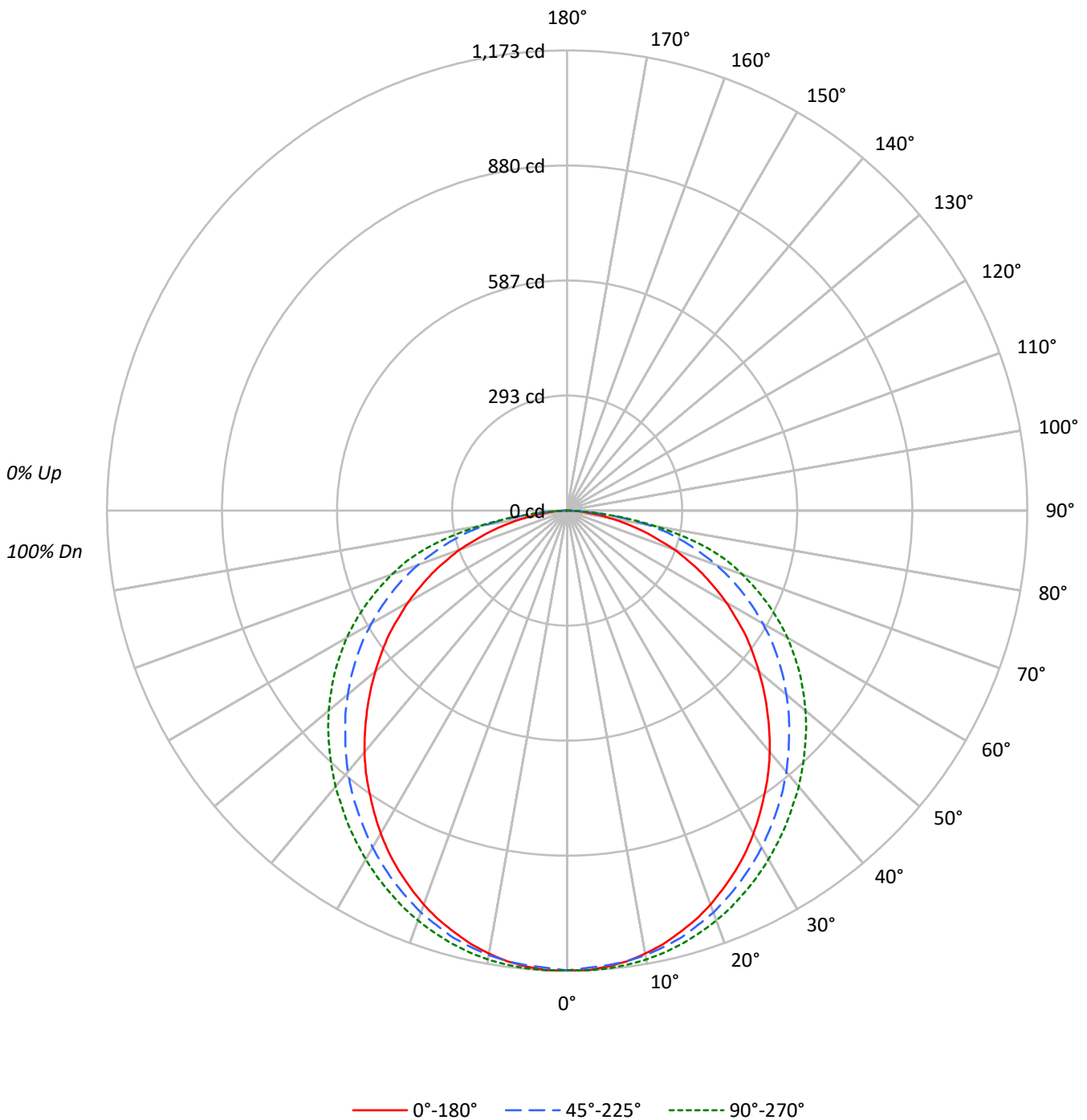
Input Watts (W): 27  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82					82			
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68					68			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36					36			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31					31			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25					25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23					23			

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

	0°	45°	90°
0°	3153	3153	3153
5°	3153	3144	3165
10°	3133	3144	3175
15°	3099	3137	3180
20°	3060	3122	3184
25°	3010	3100	3185
30°	2952	3081	3190
35°	2885	3063	3202
40°	2823	3053	3227
45°	2746	3045	3262
50°	2672	3054	3322
55°	2610	3075	3396
60°	2521	3098	3491
65°	2421	3135	3596
70°	2296	3179	3740
75°	2057	3223	3864
80°	1731	3233	3507
85°	1284	2445	2306



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.0	3.1
10°-20°	318.3	8.9
20°-30°	481.8	13.5
30°-40°	582.8	16.3
40°-50°	615.2	17.2
50°-60°	580.1	16.3
60°-70°	478.3	13.4
70°-80°	313.8	8.8
80°-90°	86.3	2.4
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°	911.1	25.5
0°-40°	1493.9	41.9
0°-60°	2689.2	75.4
0°-90°	3567.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3567.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1167	1167	1164	1172	1172	111
15°	1112	1119	1126	1139	1142	314
25°	1014	1026	1044	1066	1073	467
35°	878	901	932	964	975	550
45°	722	754	800	843	857	557
55°	556	596	655	704	724	496
65°	380	426	492	545	565	375
75°	198	248	310	359	372	209
85°	42	72	79	77	75	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1171.8	1171.8	1171.8	1171.8	1171.8
2.5°	1172.9	1171.8	1166.7	1173.5	1172.9
5°	1167.2	1167.2	1163.8	1171.8	1171.8
7.5°	1159.3	1159.8	1158.7	1167.8	1167.8
10°	1146.7	1149.0	1150.7	1161.0	1162.1
12.5°	1131.9	1135.9	1139.3	1151.9	1153.0
15°	1112.5	1118.8	1126.2	1139.3	1141.6
17.5°	1092.6	1100.0	1108.0	1125.1	1127.9
20°	1068.6	1077.2	1090.3	1107.4	1112.0
22.5°	1041.9	1053.8	1067.5	1088.0	1093.7
25°	1013.9	1026.5	1044.1	1065.8	1072.6
27.5°	983.7	998.5	1018.5	1043.6	1051.0
30°	950.1	967.2	991.7	1018.5	1026.5
32.5°	914.8	934.7	962.1	991.7	1000.8
35°	878.3	901.1	932.4	964.3	974.6
37.5°	842.4	865.2	902.2	935.8	945.5
40°	803.6	828.7	869.2	905.1	918.7
42.5°	762.6	792.2	835.0	874.9	888.0
45°	721.5	754.0	800.2	842.9	857.2
47.5°	679.9	715.8	766.6	809.9	826.4
50°	638.3	676.5	729.5	776.3	793.4
52.5°	596.2	636.1	693.6	743.2	758.6
55°	556.3	595.6	655.4	704.4	723.8
57.5°	510.1	554.6	617.8	667.4	686.2
60°	468.5	511.8	575.6	628.1	648.6
62.5°	423.5	467.9	535.2	587.6	607.6
65°	380.2	425.7	492.4	544.9	564.8
67.5°	333.4	381.3	449.7	500.4	519.8
70°	291.8	336.8	404.1	456.0	475.3
72.5°	241.1	292.4	356.8	408.1	429.2
75°	197.8	248.5	310.0	359.1	371.6
77.5°	152.2	202.9	263.9	295.8	304.3
80°	111.7	159.6	208.6	225.7	226.3
82.5°	75.2	117.4	145.3	153.9	152.7
85°	41.6	71.8	79.2	76.9	74.7
87.5°	17.1	23.9	19.4	13.7	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)