

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: P474662

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474662  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35-SQR-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, SQUARE LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

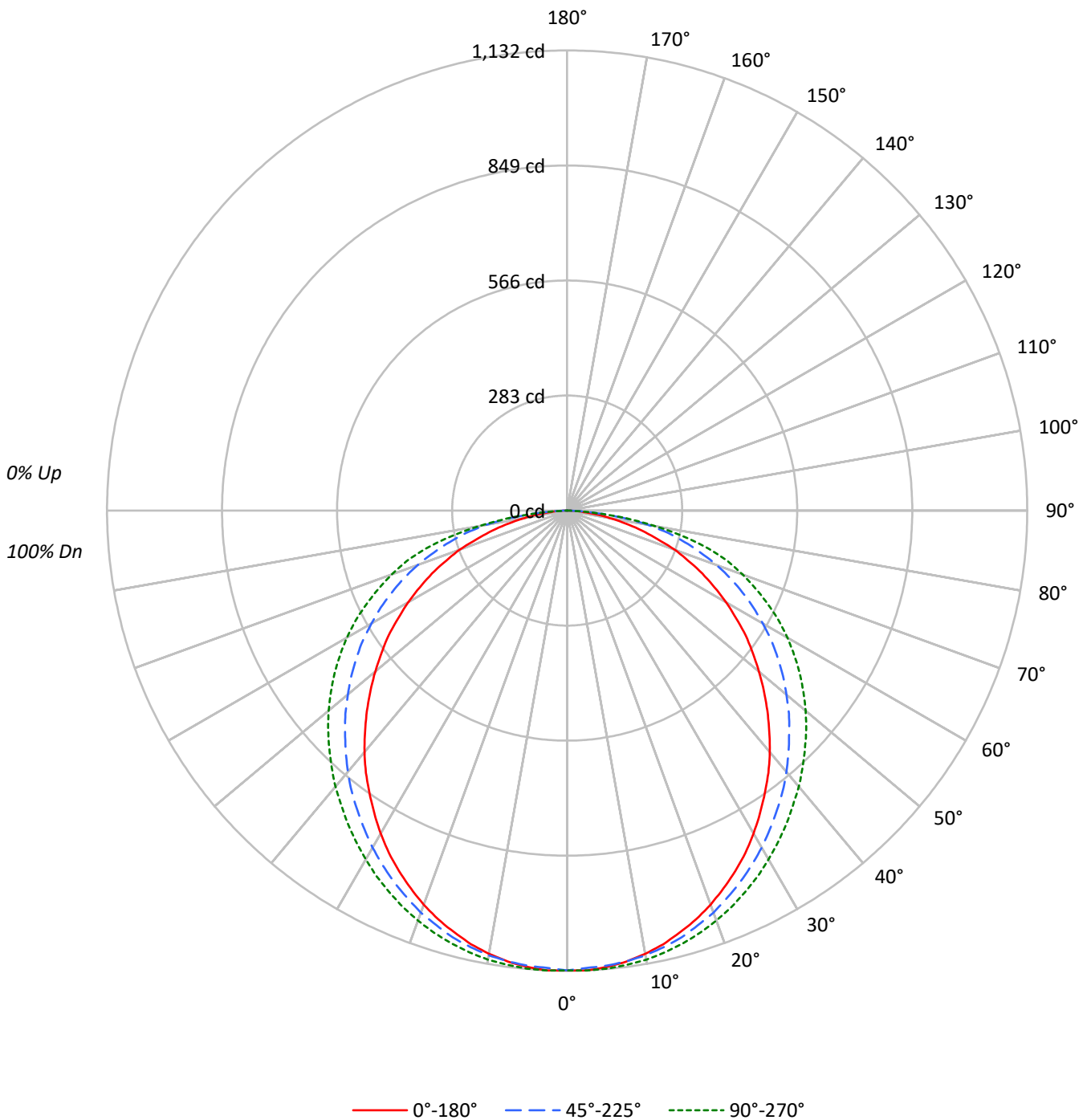
Lumens per Lamp: N/A  
Luminaire Lumens: 3443.6 lumens  
Efficiency: N/A  
Efficacy: 124.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.6  
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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	3044	3044	3044
5°	3044	3035	3055
10°	3025	3035	3065
15°	2992	3029	3070
20°	2954	3014	3074
25°	2906	2993	3074
30°	2850	2975	3079
35°	2785	2957	3090
40°	2725	2947	3115
45°	2651	2939	3149
50°	2580	2948	3206
55°	2519	2968	3278
60°	2434	2990	3370
65°	2336	3026	3472
70°	2216	3069	3610
75°	1985	3112	3729
80°	1671	3121	3384
85°	1241	2362	2226



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	3.1
10°-20°	307.2	8.9
20°-30°	465.0	13.5
30°-40°	562.5	16.3
40°-50°	593.8	17.2
50°-60°	560.0	16.3
60°-70°	461.7	13.4
70°-80°	302.9	8.8
80°-90°	83.3	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°	879.4	25.5
0°-40°	1442.0	41.9
0°-60°	2595.8	75.4
0°-90°	3443.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3443.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1127	1127	1123	1131	1131	107
15°	1074	1080	1087	1100	1102	303
25°	979	991	1008	1029	1035	451
35°	848	870	900	931	941	531
45°	696	728	772	814	827	537
55°	537	575	633	680	699	478
65°	367	411	475	526	545	362
75°	191	240	299	347	359	202
85°	40	69	76	74	72	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1131.1	1131.1	1131.1	1131.1	1131.1
2.5°	1132.2	1131.1	1126.1	1132.7	1132.2
5°	1126.7	1126.7	1123.4	1131.1	1131.1
7.5°	1119.0	1119.5	1118.4	1127.2	1127.2
10°	1106.9	1109.1	1110.7	1120.6	1121.7
12.5°	1092.6	1096.4	1099.7	1111.8	1112.9
15°	1073.9	1079.9	1087.1	1099.7	1101.9
17.5°	1054.6	1061.8	1069.5	1086.0	1088.7
20°	1031.5	1039.8	1052.4	1068.9	1073.3
22.5°	1005.7	1017.2	1030.4	1050.2	1055.7
25°	978.7	990.8	1007.9	1028.8	1035.4
27.5°	949.5	963.9	983.1	1007.3	1014.5
30°	917.1	933.6	957.3	983.1	990.8
32.5°	883.0	902.2	928.6	957.3	966.1
35°	847.8	869.8	900.0	930.8	940.7
37.5°	813.1	835.1	870.9	903.3	912.7
40°	775.7	799.9	839.0	873.6	886.8
42.5°	736.1	764.7	806.0	844.5	857.1
45°	696.5	727.8	772.4	813.7	827.4
47.5°	656.3	691.0	739.9	781.8	797.7
50°	616.2	653.0	704.2	749.3	765.8
52.5°	575.5	614.0	669.5	717.4	732.2
55°	536.9	574.9	632.7	680.0	698.7
57.5°	492.4	535.3	596.4	644.2	662.4
60°	452.2	494.0	555.6	606.3	626.1
62.5°	408.8	451.7	516.6	567.2	586.5
65°	366.9	411.0	475.3	525.9	545.2
67.5°	321.8	368.0	434.1	483.0	501.7
70°	281.7	325.1	390.1	440.1	458.8
72.5°	232.7	282.2	344.4	393.9	414.3
75°	190.9	239.9	299.3	346.6	358.7
77.5°	146.9	195.9	254.7	285.5	293.8
80°	107.8	154.0	201.4	217.9	218.4
82.5°	72.6	113.3	140.3	148.5	147.4
85°	40.2	69.3	76.5	74.3	72.1
87.5°	16.5	23.1	18.7	13.2	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)