

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: P474620

Luminaire Tested: **24CZ2-35HE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474620  
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-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

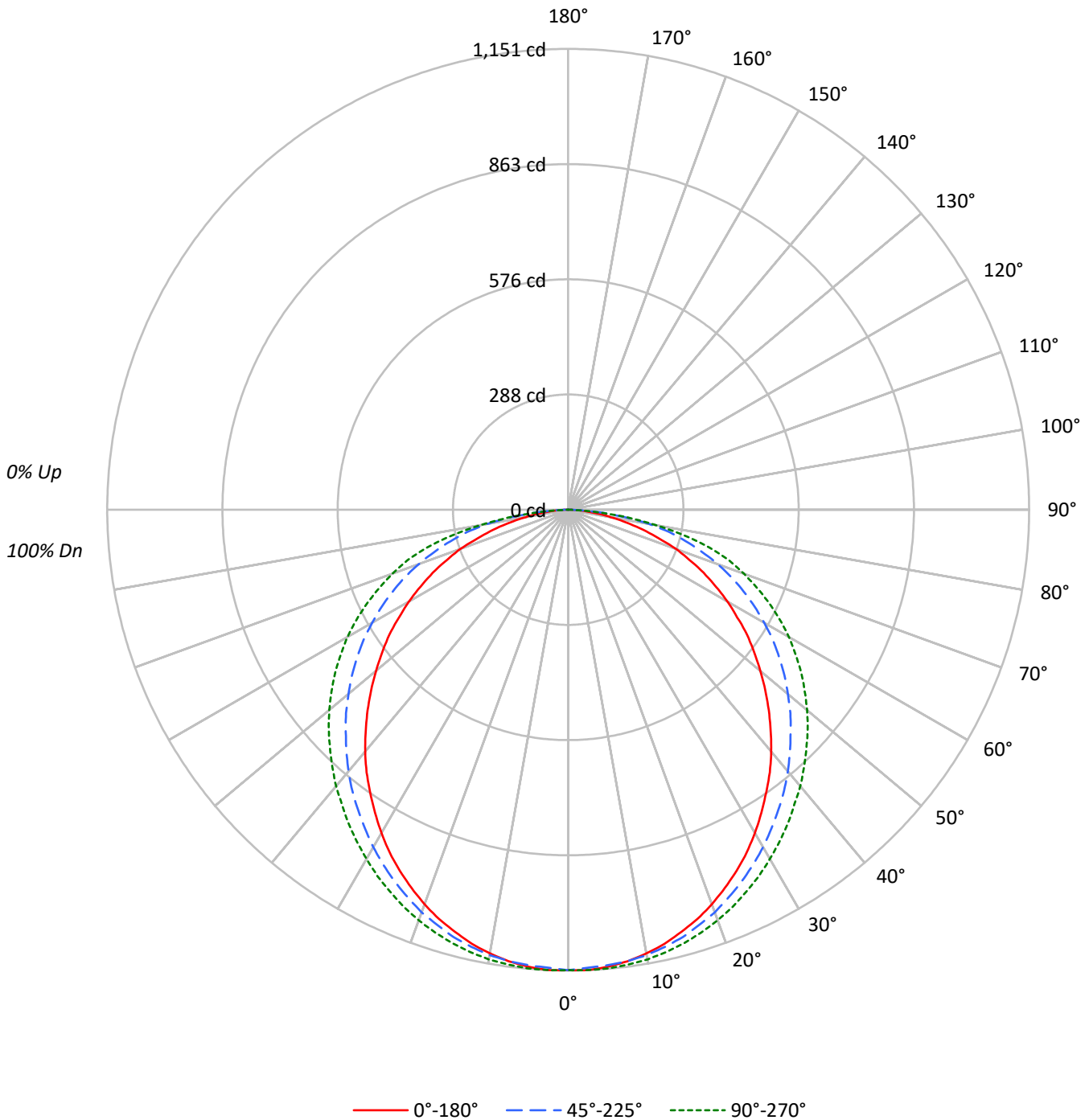
Lumens per Lamp: N/A  
Luminaire Lumens: 3501.0 lumens  
Efficiency: N/A  
Efficacy: 129.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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	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°	3095	3095	3095
5°	3094	3085	3106
10°	3075	3086	3116
15°	3042	3079	3121
20°	3003	3064	3125
25°	2954	3043	3125
30°	2897	3024	3130
35°	2831	3006	3142
40°	2770	2996	3167
45°	2695	2989	3201
50°	2622	2997	3260
55°	2561	3018	3332
60°	2475	3040	3426
65°	2376	3077	3529
70°	2253	3120	3670
75°	2018	3164	3792
80°	1698	3172	3440
85°	1260	2399	2263



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.0	3.1
10°-20°	312.3	8.9
20°-30°	472.8	13.5
30°-40°	571.9	16.3
40°-50°	603.7	17.2
50°-60°	569.3	16.3
60°-70°	469.4	13.4
70°-80°	307.9	8.8
80°-90°	84.6	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°	894.1	25.5
0°-40°	1466.0	41.9
0°-60°	2639.0	75.4
0°-90°	3501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3501.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1150	1150	1150	1150	1150	
5°	1146	1146	1142	1150	1150	109
15°	1092	1098	1105	1118	1120	308
25°	995	1007	1025	1046	1053	458
35°	862	884	915	946	956	540
45°	708	740	785	827	841	546
55°	546	584	643	691	710	486
65°	373	418	483	535	554	368
75°	194	244	304	352	365	205
85°	41	70	78	76	73	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1150.0	1150.0	1150.0	1150.0	1150.0
2.5°	1151.1	1150.0	1144.9	1151.6	1151.1
5°	1145.5	1145.5	1142.1	1150.0	1150.0
7.5°	1137.6	1138.2	1137.1	1146.0	1146.0
10°	1125.3	1127.6	1129.3	1139.3	1140.4
12.5°	1110.8	1114.7	1118.1	1130.4	1131.5
15°	1091.8	1097.9	1105.2	1118.1	1120.3
17.5°	1072.2	1079.5	1087.3	1104.1	1106.9
20°	1048.7	1057.1	1070.0	1086.7	1091.2
22.5°	1022.4	1034.2	1047.6	1067.7	1073.3
25°	995.0	1007.3	1024.7	1045.9	1052.6
27.5°	965.4	979.9	999.5	1024.1	1031.4
30°	932.4	949.2	973.2	999.5	1007.3
32.5°	897.7	917.3	944.1	973.2	982.2
35°	861.9	884.3	915.0	946.4	956.4
37.5°	826.7	849.0	885.4	918.4	927.9
40°	788.6	813.2	853.0	888.2	901.6
42.5°	748.4	777.4	819.4	858.5	871.4
45°	708.1	740.0	785.3	827.2	841.2
47.5°	667.3	702.5	752.3	794.8	811.0
50°	626.4	663.9	715.9	761.8	778.6
52.5°	585.0	624.2	680.7	729.3	744.4
55°	545.9	584.5	643.2	691.3	710.3
57.5°	500.6	544.2	606.3	655.0	673.4
60°	459.8	502.3	564.9	616.4	636.5
62.5°	415.6	459.2	525.2	576.7	596.2
65°	373.1	417.8	483.2	534.7	554.3
67.5°	327.2	374.2	441.3	491.1	510.1
70°	286.4	330.6	396.6	447.5	466.5
72.5°	236.6	286.9	350.1	400.5	421.2
75°	194.1	243.9	304.3	352.4	364.7
77.5°	149.3	199.1	259.0	290.3	298.7
80°	109.6	156.6	204.7	221.5	222.0
82.5°	73.8	115.2	142.6	151.0	149.9
85°	40.8	70.5	77.7	75.5	73.3
87.5°	16.8	23.5	19.0	13.4	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)