

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: P474570

Luminaire Tested: **24CZ2-35HE-SQR-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474570
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-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3378.4 lumens
Efficiency: N/A
Efficacy: 125.1 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

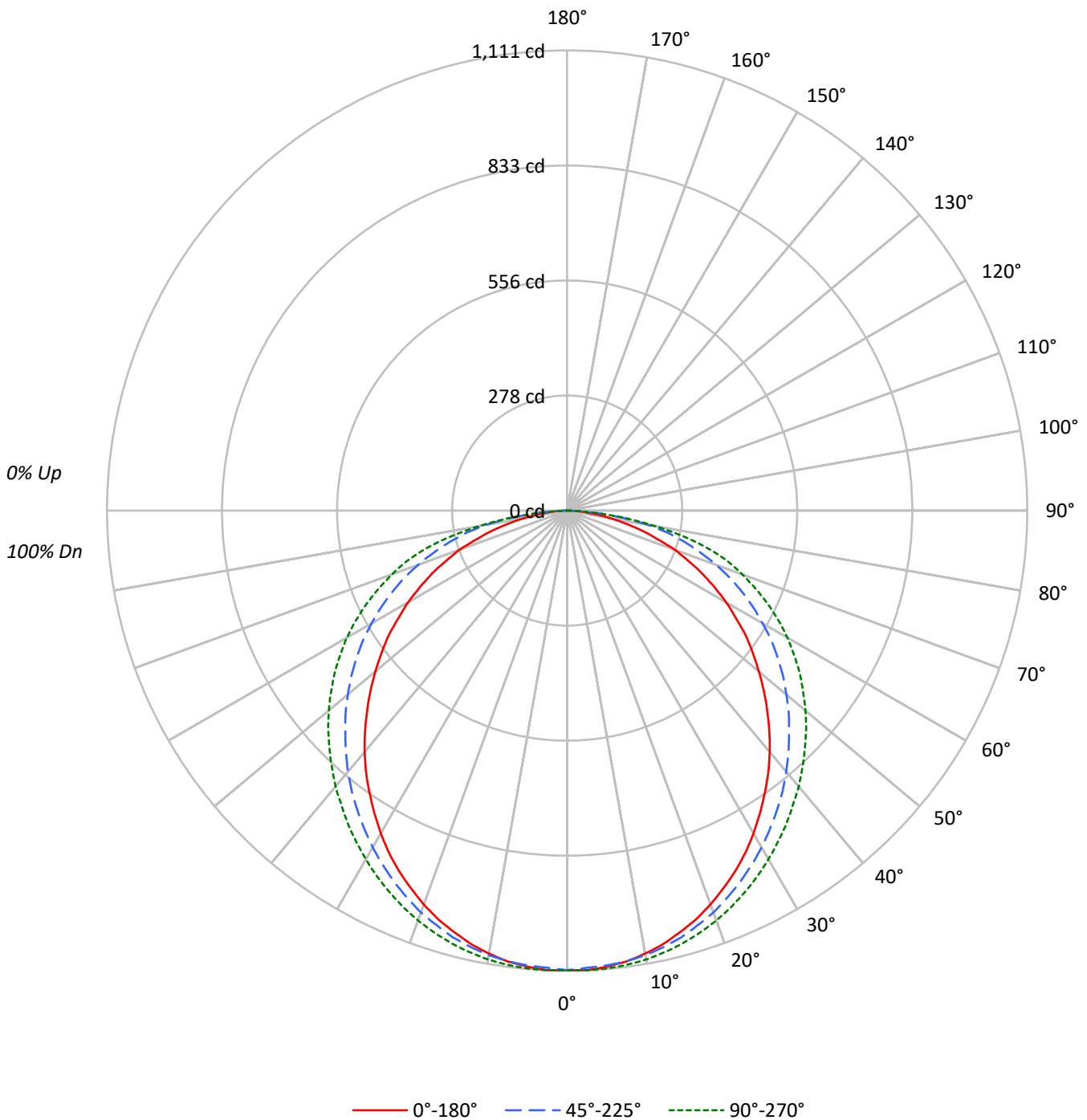
Input Watts (W): 27
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474570

CATALOG NUMBER: 24CZ2-35HE-SQR-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474570

CATALOG NUMBER: 24CZ2-35HE-SQR-UNV-L830-CD1-U

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°	2986	2986	2986
5°	2986	2977	2998
10°	2967	2978	3007
15°	2935	2971	3012
20°	2898	2957	3015
25°	2851	2936	3016
30°	2796	2918	3021
35°	2732	2901	3032
40°	2673	2891	3057
45°	2600	2884	3089
50°	2531	2892	3145
55°	2472	2912	3216
60°	2388	2934	3306
65°	2292	2969	3406
70°	2174	3011	3541
75°	1947	3053	3659
80°	1640	3061	3321
85°	1216	2316	2183



TEST NUMBER: P474570

CATALOG NUMBER: 24CZ2-35HE-SQR-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.2	3.1
10°-20°	301.4	8.9
20°-30°	456.2	13.5
30°-40°	551.9	16.3
40°-50°	582.6	17.2
50°-60°	549.4	16.3
60°-70°	452.9	13.4
70°-80°	297.1	8.8
80°-90°	81.7	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°	862.8	25.5
0°-40°	1414.7	41.9
0°-60°	2546.7	75.4
0°-90°	3378.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3378.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1105	1105	1102	1110	1110	105
15°	1054	1060	1066	1079	1081	297
25°	960	972	989	1009	1016	442
35°	832	853	883	913	923	521
45°	683	714	758	798	812	527
55°	527	564	621	667	686	469
65°	360	403	466	516	535	355
75°	187	235	294	340	352	198
85°	39	68	75	73	71	49
90°	0	0	0	0	0	



TEST NUMBER: P474570

CATALOG NUMBER: 24CZ2-35HE-SQR-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1109.7	1109.7	1109.7	1109.7	1109.7
2.5°	1110.8	1109.7	1104.8	1111.3	1110.8
5°	1105.4	1105.4	1102.1	1109.7	1109.7
7.5°	1097.8	1098.4	1097.3	1105.9	1105.9
10°	1086.0	1088.1	1089.7	1099.4	1100.5
12.5°	1071.9	1075.7	1078.9	1090.8	1091.9
15°	1053.6	1059.5	1066.5	1078.9	1081.1
17.5°	1034.7	1041.7	1049.3	1065.4	1068.1
20°	1012.0	1020.1	1032.5	1048.7	1053.0
22.5°	986.6	998.0	1010.9	1030.4	1035.8
25°	960.2	972.1	988.8	1009.3	1015.8
27.5°	931.6	945.6	964.5	988.3	995.3
30°	899.7	915.9	939.1	964.5	972.1
32.5°	866.3	885.2	911.1	939.1	947.8
35°	831.7	853.3	883.0	913.2	923.0
37.5°	797.7	819.3	854.4	886.3	895.4
40°	761.0	784.8	823.1	857.1	870.1
42.5°	722.2	750.2	790.7	828.5	840.9
45°	683.3	714.1	757.8	798.3	811.8
47.5°	643.9	677.9	725.9	767.0	782.6
50°	604.5	640.7	690.9	735.1	751.3
52.5°	564.6	602.3	656.9	703.8	718.4
55°	526.8	564.0	620.7	667.1	685.5
57.5°	483.1	525.2	585.1	632.0	649.8
60°	443.7	484.7	545.1	594.8	614.2
62.5°	401.0	443.1	506.8	556.5	575.4
65°	360.0	403.2	466.3	516.0	534.9
67.5°	315.7	361.1	425.9	473.9	492.2
70°	276.3	319.0	382.7	431.8	450.1
72.5°	228.3	276.9	337.9	386.5	406.4
75°	187.3	235.3	293.6	340.0	351.9
77.5°	144.1	192.1	249.9	280.1	288.2
80°	105.8	151.1	197.5	213.7	214.3
82.5°	71.2	111.2	137.6	145.7	144.6
85°	39.4	68.0	75.0	72.9	70.7
87.5°	16.2	22.7	18.4	13.0	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)