

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: P474700

Luminaire Tested: **24CZ2-130VHE-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474700
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-SQR-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12599.0 lumens
Efficiency: N/A
Efficacy: 136.6 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

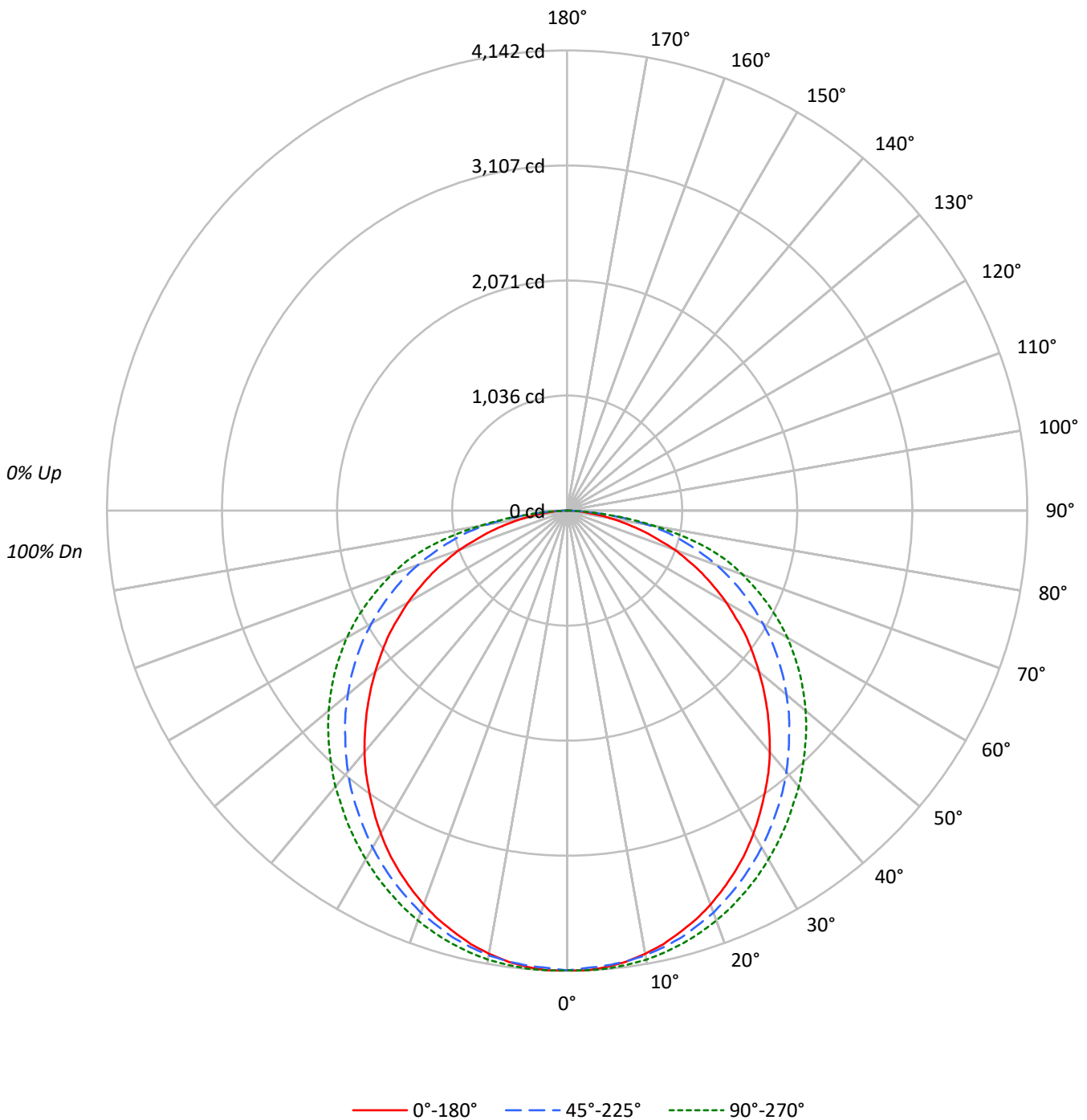
Input Watts (W): 92.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474700

CATALOG NUMBER: 24CZ2-130VHE-SQR-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474700

CATALOG NUMBER: 24CZ2-130VHE-SQR-UNV-L840-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°	11136	11136	11136
5°	11135	11103	11179
10°	11066	11105	11214
15°	10946	11080	11232
20°	10808	11027	11246
25°	10632	10949	11247
30°	10426	10883	11264
35°	10189	10818	11307
40°	9970	10783	11398
45°	9697	10755	11521
50°	9438	10786	11730
55°	9217	10860	11993
60°	8904	10941	12328
65°	8548	11074	12701
70°	8109	11228	13208
75°	7261	11385	13645
80°	6113	11416	12383
85°	4536	8639	8142



TEST NUMBER: P474700

CATALOG NUMBER: 24CZ2-130VHE-SQR-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.2	3.1
10°-20°	1123.9	8.9
20°-30°	1701.4	13.5
30°-40°	2058.2	16.3
40°-50°	2172.6	17.2
50°-60°	2048.8	16.3
60°-70°	1689.1	13.4
70°-80°	1108.1	8.8
80°-90°	304.7	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°	3217.5	25.5
0°-40°	5275.8	41.9
0°-60°	9497.1	75.4
0°-90°	12599.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12599.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4138	4138	4138	4138	4138	
5°	4122	4122	4110	4138	4138	391
15°	3929	3951	3977	4024	4032	1108
25°	3581	3625	3688	3764	3788	1649
35°	3102	3182	3293	3406	3442	1942
45°	2548	2663	2826	2977	3027	1967
55°	1964	2103	2315	2488	2556	1750
65°	1342	1504	1739	1924	1995	1326
75°	698	878	1095	1268	1312	738
85°	147	254	280	272	264	182
90°	0	0	0	0	0	



TEST NUMBER: P474700

CATALOG NUMBER: 24CZ2-130VHE-SQR-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4138.3	4138.3	4138.3	4138.3	4138.3
2.5°	4142.4	4138.3	4120.2	4144.4	4142.4
5°	4122.2	4122.2	4110.2	4138.3	4138.3
7.5°	4094.1	4096.1	4092.1	4124.3	4124.3
10°	4049.8	4057.8	4063.9	4100.1	4104.1
12.5°	3997.4	4011.5	4023.6	4067.9	4071.9
15°	3929.0	3951.2	3977.3	4023.6	4031.7
17.5°	3858.6	3884.7	3912.9	3973.3	3983.4
20°	3774.0	3804.2	3850.5	3910.9	3927.0
22.5°	3679.4	3721.7	3770.0	3842.5	3862.6
25°	3580.8	3625.1	3687.5	3764.0	3788.1
27.5°	3474.1	3526.5	3596.9	3685.5	3711.6
30°	3355.4	3415.7	3502.3	3596.9	3625.1
32.5°	3230.6	3301.0	3397.6	3502.3	3534.5
35°	3101.7	3182.3	3293.0	3405.7	3441.9
37.5°	2974.9	3055.5	3186.3	3305.0	3339.3
40°	2838.1	2926.6	3069.5	3196.3	3244.7
42.5°	2693.1	2797.8	2948.8	3089.7	3136.0
45°	2548.2	2663.0	2826.0	2977.0	3027.3
47.5°	2401.3	2528.1	2707.2	2860.2	2918.6
50°	2254.4	2389.2	2576.4	2741.5	2801.8
52.5°	2105.4	2246.3	2449.6	2624.7	2679.1
55°	1964.5	2103.4	2314.7	2487.8	2556.3
57.5°	1801.5	1958.5	2181.9	2357.0	2423.4
60°	1654.5	1807.5	2032.9	2218.1	2290.6
62.5°	1495.5	1652.5	1890.0	2075.2	2145.7
65°	1342.5	1503.6	1739.1	1924.3	1994.7
67.5°	1177.5	1346.6	1588.1	1767.3	1835.7
70°	1030.6	1189.6	1427.1	1610.3	1678.7
72.5°	851.4	1032.6	1260.0	1441.2	1515.6
75°	698.4	877.6	1095.0	1268.1	1312.4
77.5°	537.4	716.6	931.9	1044.7	1074.8
80°	394.5	563.6	736.7	797.1	799.1
82.5°	265.7	414.6	513.3	543.5	539.4
85°	146.9	253.6	279.8	271.7	263.7
87.5°	60.4	84.5	68.4	48.3	38.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)