

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: P474933

Luminaire Tested: **22CZ2-105VHE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474933
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-105VHE-S-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10742.2 lumens
Efficiency: N/A
Efficacy: 135.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

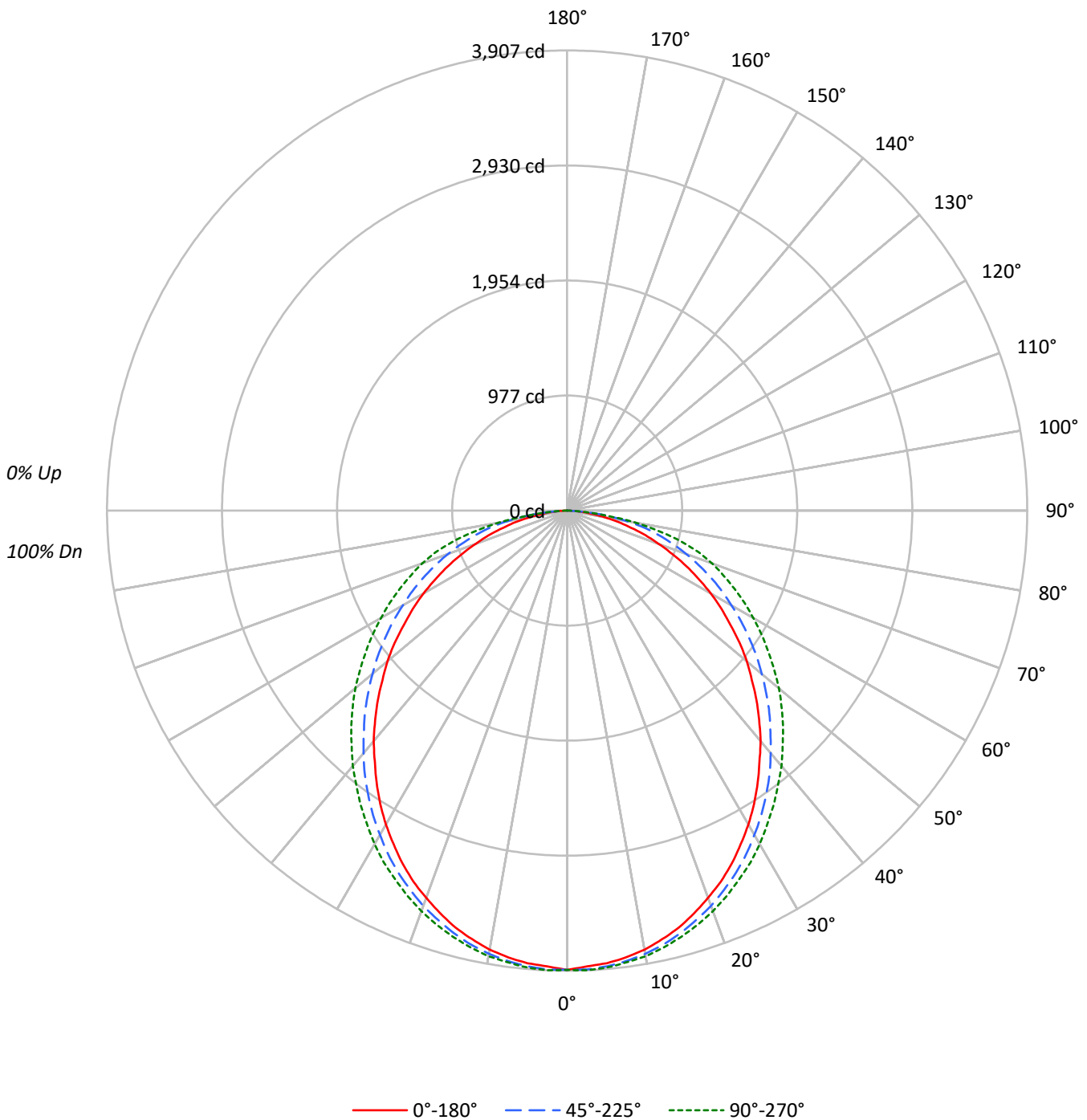
Input Watts (W): 79.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10493	10493	10493
5°	10421	10491	10519
10°	10342	10442	10499
15°	10212	10349	10436
20°	10020	10229	10363
25°	9818	10073	10258
30°	9564	9879	10162
35°	9266	9676	10035
40°	8977	9442	9945
45°	8647	9240	9863
50°	8336	9033	9828
55°	7940	8854	9781
60°	7583	8675	9822
65°	7117	8574	9965
70°	6504	8467	10288
75°	5838	8406	10298
80°	4916	7936	9145
85°	3693	5379	4977



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	368.3	3.4
10°-20°	1046.0	9.7
20°-30°	1559.5	14.5
30°-40°	1840.2	17.1
40°-50°	1874.8	17.5
50°-60°	1690.8	15.7
60°-70°	1327.9	12.4
70°-80°	830.2	7.7
80°-90°	204.6	1.9
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°	2973.8	27.7
0°-40°	4813.9	44.8
0°-60°	8379.6	78.0
0°-90°	10742.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10742.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3899	3899	3899	3899	3899	
5°	3858	3866	3884	3892	3894	366
15°	3666	3678	3715	3741	3746	1032
25°	3307	3325	3392	3442	3455	1521
35°	2821	2860	2945	3026	3055	1764
45°	2272	2311	2428	2545	2592	1753
55°	1692	1747	1887	2033	2085	1518
65°	1118	1178	1347	1497	1565	1104
75°	562	640	808	946	990	600
85°	120	153	174	172	161	146
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3899.4	3899.4	3899.4	3899.4	3899.4
2.5°	3873.4	3881.2	3899.4	3907.2	3907.2
5°	3857.8	3865.6	3883.8	3891.6	3894.2
7.5°	3826.6	3837.0	3857.8	3868.2	3868.2
10°	3785.0	3798.0	3821.4	3837.0	3842.2
12.5°	3727.9	3743.4	3774.6	3792.8	3798.0
15°	3665.5	3678.5	3714.9	3740.8	3746.0
17.5°	3584.9	3605.7	3644.7	3678.5	3686.3
20°	3499.1	3522.5	3571.9	3610.9	3618.7
22.5°	3410.7	3428.9	3483.5	3530.3	3540.7
25°	3306.7	3324.9	3392.5	3441.9	3454.9
27.5°	3192.3	3223.5	3291.1	3348.3	3369.1
30°	3077.9	3109.1	3179.3	3246.9	3270.3
32.5°	2953.2	2987.0	3067.5	3137.7	3161.1
35°	2820.6	2859.6	2945.4	3026.0	3054.6
37.5°	2682.8	2727.0	2823.2	2909.0	2940.2
40°	2555.4	2586.6	2688.0	2786.8	2831.0
42.5°	2412.4	2454.0	2555.4	2667.2	2708.8
45°	2272.1	2311.1	2428.0	2545.0	2591.8
47.5°	2126.5	2175.9	2292.9	2422.8	2469.6
50°	1991.3	2032.9	2157.7	2295.5	2347.5
52.5°	1845.7	1889.9	2025.1	2168.1	2214.9
55°	1692.4	1746.9	1887.3	2032.9	2084.9
57.5°	1552.0	1604.0	1752.1	1902.9	1957.5
60°	1409.0	1461.0	1611.8	1765.1	1824.9
62.5°	1258.2	1318.0	1481.8	1630.0	1697.6
65°	1117.8	1177.6	1346.6	1497.4	1565.0
67.5°	969.7	1039.8	1208.8	1367.4	1435.0
70°	826.7	909.9	1076.2	1232.2	1307.6
72.5°	699.3	766.9	941.1	1104.8	1167.2
75°	561.5	639.5	808.5	946.3	990.5
77.5°	444.5	512.1	673.3	764.3	792.9
80°	317.2	392.5	512.1	566.7	590.1
82.5°	210.6	273.0	348.3	358.7	353.5
85°	119.6	153.4	174.2	171.6	161.2
87.5°	46.8	52.0	39.0	23.4	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)