

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: P474432

Luminaire Tested: **24CZ2-30VHE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474432
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-HRP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2457.9 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

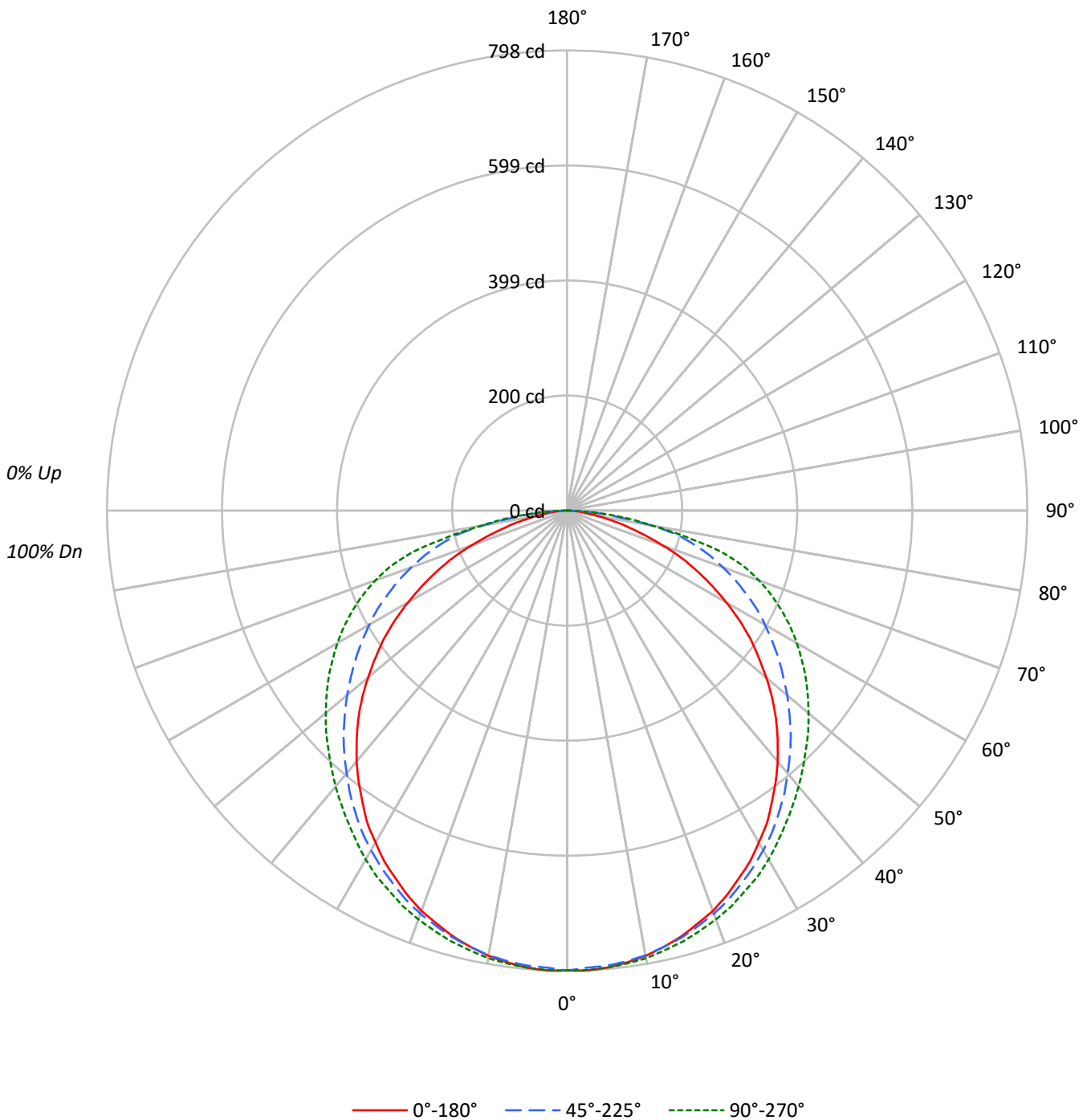
Input Watts (W): 20.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474432

CATALOG NUMBER: 24CZ2-30VHE-HRP-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474432

CATALOG NUMBER: 24CZ2-30VHE-HRP-UNV-L835-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	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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1073	1073	1073
5°	1074	1070	1074
10°	1071	1070	1077
15°	1065	1068	1078
20°	1058	1065	1080
25°	1045	1060	1082
30°	1033	1057	1086
35°	1016	1051	1087
40°	998	1045	1097
45°	975	1044	1114
50°	943	1043	1144
55°	910	1050	1185
60°	858	1066	1238
65°	793	1091	1307
70°	692	1129	1393
75°	561	1187	1439
80°	415	1165	1165
85°	318	858	968



TEST NUMBER: P474432

CATALOG NUMBER: 24CZ2-30VHE-HRP-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.5	3.1
10°-20°	216.9	8.8
20°-30°	330.3	13.4
30°-40°	401.0	16.3
40°-50°	423.7	17.2
50°-60°	399.8	16.3
60°-70°	332.4	13.5
70°-80°	218.7	8.9
80°-90°	59.6	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°	622.7	25.3
0°-40°	1023.7	41.7
0°-60°	1847.2	75.2
0°-90°	2457.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2457.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	796	796	792	796	796	76
15°	764	766	767	774	774	216
25°	704	708	714	726	728	325
35°	618	626	640	656	662	387
45°	512	523	548	575	586	395
55°	388	404	448	490	505	346
65°	249	278	343	393	411	246
75°	108	158	228	271	277	116
85°	21	45	56	62	63	25
90°	0	0	0	0	0	



TEST NUMBER: P474432

CATALOG NUMBER: 24CZ2-30VHE-HRP-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	797.5	797.5	797.5	797.5	797.5
2.5°	798.5	797.5	793.3	797.5	797.5
5°	795.5	795.5	792.3	795.5	795.5
7.5°	790.3	790.3	788.2	792.3	792.3
10°	784.0	784.0	783.1	788.2	788.2
12.5°	774.9	775.8	774.9	781.0	781.0
15°	764.5	765.6	766.6	773.8	773.8
17.5°	751.2	753.2	755.3	763.5	764.5
20°	738.8	739.8	743.9	753.2	754.3
22.5°	722.4	725.4	730.6	739.8	743.0
25°	703.8	707.9	714.1	726.5	728.5
27.5°	686.4	689.4	697.7	711.1	715.2
30°	664.7	669.9	680.1	693.5	698.7
32.5°	644.1	649.3	661.6	676.0	680.1
35°	618.5	625.6	640.0	656.5	661.6
37.5°	593.7	600.9	618.5	636.9	643.2
40°	568.0	576.2	594.8	616.3	624.6
42.5°	540.2	551.5	572.1	595.7	605.0
45°	512.4	522.8	548.4	575.2	585.5
47.5°	482.6	495.0	522.8	554.7	567.0
50°	450.7	466.2	498.1	533.0	546.4
52.5°	418.8	436.3	472.3	511.4	525.8
55°	387.9	404.4	447.6	489.8	505.2
57.5°	354.0	374.6	421.9	467.1	482.6
60°	318.9	341.6	396.1	443.5	459.9
62.5°	284.0	309.8	371.4	418.8	436.3
65°	249.0	277.9	342.7	393.1	410.6
67.5°	215.0	246.9	315.9	366.4	383.8
70°	175.9	216.1	287.0	336.5	354.0
72.5°	139.9	186.3	259.3	305.6	321.1
75°	108.0	157.5	228.4	270.6	276.8
77.5°	79.2	128.6	196.5	210.9	212.0
80°	53.5	102.9	150.3	148.2	150.3
82.5°	35.0	77.2	94.6	106.0	107.0
85°	20.6	45.3	55.6	61.8	62.7
87.5°	10.2	15.4	19.5	20.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)