

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: P474419

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474419
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-HRP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, 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: 2511.4 lumens
Efficiency: N/A
Efficacy: 112.6 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

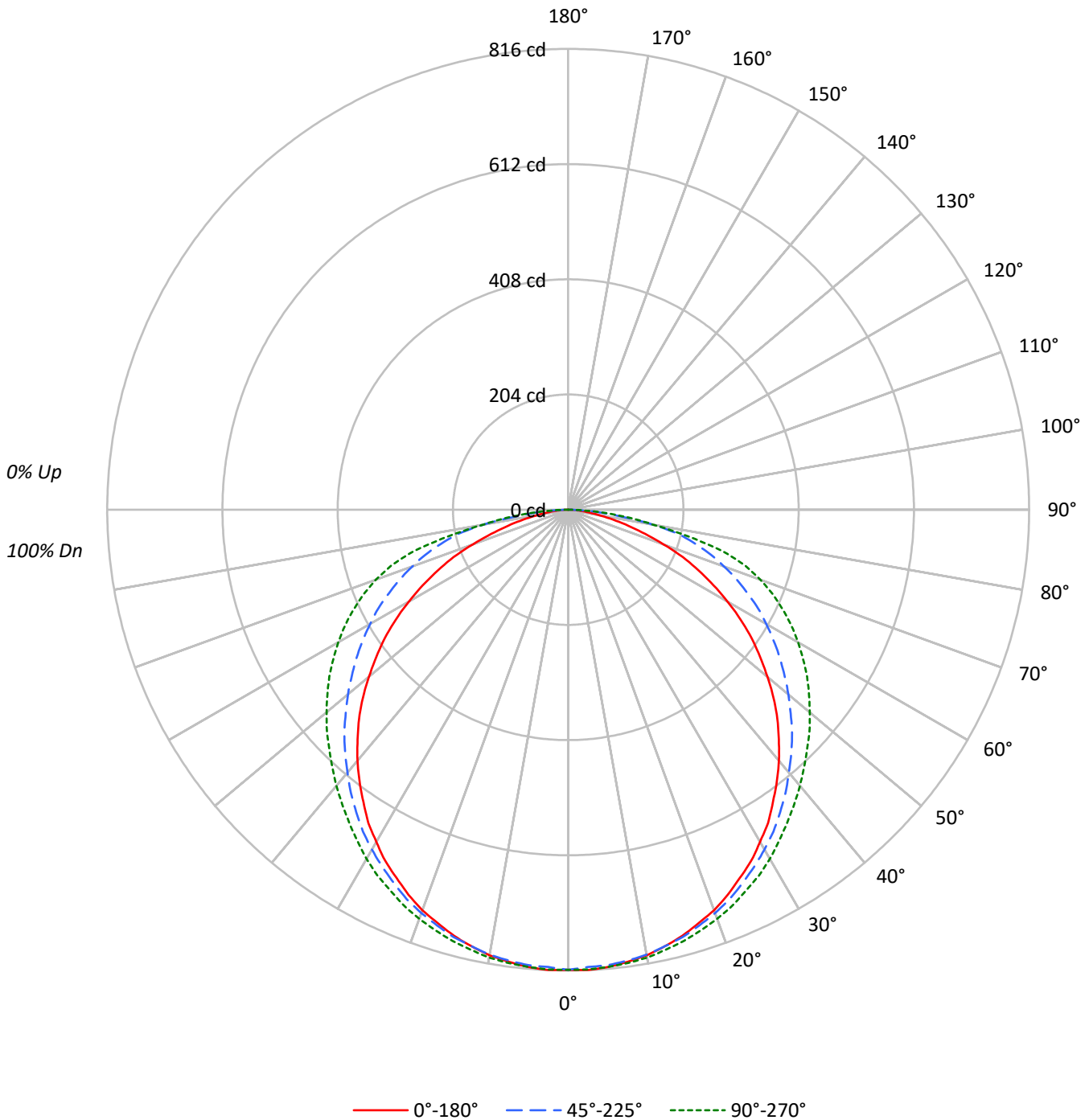
Input Watts (W): 22.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474419

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

Luminous Intensity Polar Plot





TEST NUMBER: P474419

CATALOG NUMBER: 24CZ2-30HE-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°	1096	1096	1096
5°	1098	1093	1098
10°	1094	1093	1100
15°	1088	1091	1101
20°	1081	1088	1104
25°	1068	1083	1105
30°	1055	1080	1109
35°	1038	1074	1110
40°	1019	1067	1121
45°	996	1066	1138
50°	964	1065	1169
55°	930	1073	1211
60°	877	1089	1264
65°	810	1115	1336
70°	707	1154	1423
75°	574	1213	1470
80°	424	1190	1190
85°	324	877	990



TEST NUMBER: P474419

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	3.1
10°-20°	221.7	8.8
20°-30°	337.4	13.4
30°-40°	409.7	16.3
40°-50°	432.9	17.2
50°-60°	408.5	16.3
60°-70°	339.6	13.5
70°-80°	223.4	8.9
80°-90°	60.9	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°	636.3	25.3
0°-40°	1046.0	41.7
0°-60°	1887.4	75.2
0°-90°	2511.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2511.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	813	813	810	813	813	77
15°	781	782	783	791	791	220
25°	719	723	730	742	744	332
35°	632	639	654	671	676	396
45°	524	534	560	588	598	403
55°	396	413	457	500	516	353
65°	254	284	350	402	420	252
75°	110	161	233	276	283	119
85°	21	46	57	63	64	26
90°	0	0	0	0	0	



TEST NUMBER: P474419

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	814.8	814.8	814.8	814.8	814.8
2.5°	815.9	814.8	810.6	814.8	814.8
5°	812.8	812.8	809.5	812.8	812.8
7.5°	807.5	807.5	805.3	809.5	809.5
10°	801.1	801.1	800.1	805.3	805.3
12.5°	791.7	792.7	791.7	798.0	798.0
15°	781.1	782.2	783.3	790.6	790.6
17.5°	767.5	769.6	771.8	780.1	781.1
20°	754.9	755.9	760.1	769.6	770.7
22.5°	738.1	741.2	746.5	755.9	759.1
25°	719.1	723.3	729.7	742.3	744.3
27.5°	701.3	704.4	712.8	726.5	730.7
30°	679.2	684.5	694.9	708.6	713.9
32.5°	658.1	663.4	676.0	690.7	694.9
35°	631.9	639.2	653.9	670.8	676.0
37.5°	606.7	614.0	631.9	650.8	657.2
40°	580.3	588.7	607.7	629.7	638.2
42.5°	551.9	563.5	584.5	608.7	618.2
45°	523.6	534.1	560.4	587.7	598.2
47.5°	493.1	505.8	534.1	566.7	579.4
50°	460.5	476.3	508.9	544.6	558.3
52.5°	428.0	445.8	482.6	522.5	537.3
55°	396.3	413.2	457.3	500.5	516.2
57.5°	361.7	382.7	431.1	477.3	493.1
60°	325.9	349.1	404.8	453.1	469.9
62.5°	290.2	316.5	379.5	428.0	445.8
65°	254.4	283.9	350.2	401.6	419.5
67.5°	219.7	252.3	322.8	374.3	392.1
70°	179.8	220.8	293.3	343.8	361.7
72.5°	143.0	190.3	264.9	312.3	328.0
75°	110.4	160.9	233.4	276.5	282.8
77.5°	80.9	131.4	200.8	215.5	216.6
80°	54.7	105.1	153.6	151.4	153.6
82.5°	35.7	78.9	96.7	108.3	109.3
85°	21.0	46.3	56.8	63.1	64.1
87.5°	10.5	15.8	20.0	21.0	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)