

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: P474369

Luminaire Tested: **24CZ2-30HE-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474369
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-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2423.5 lumens
Efficiency: N/A
Efficacy: 108.7 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

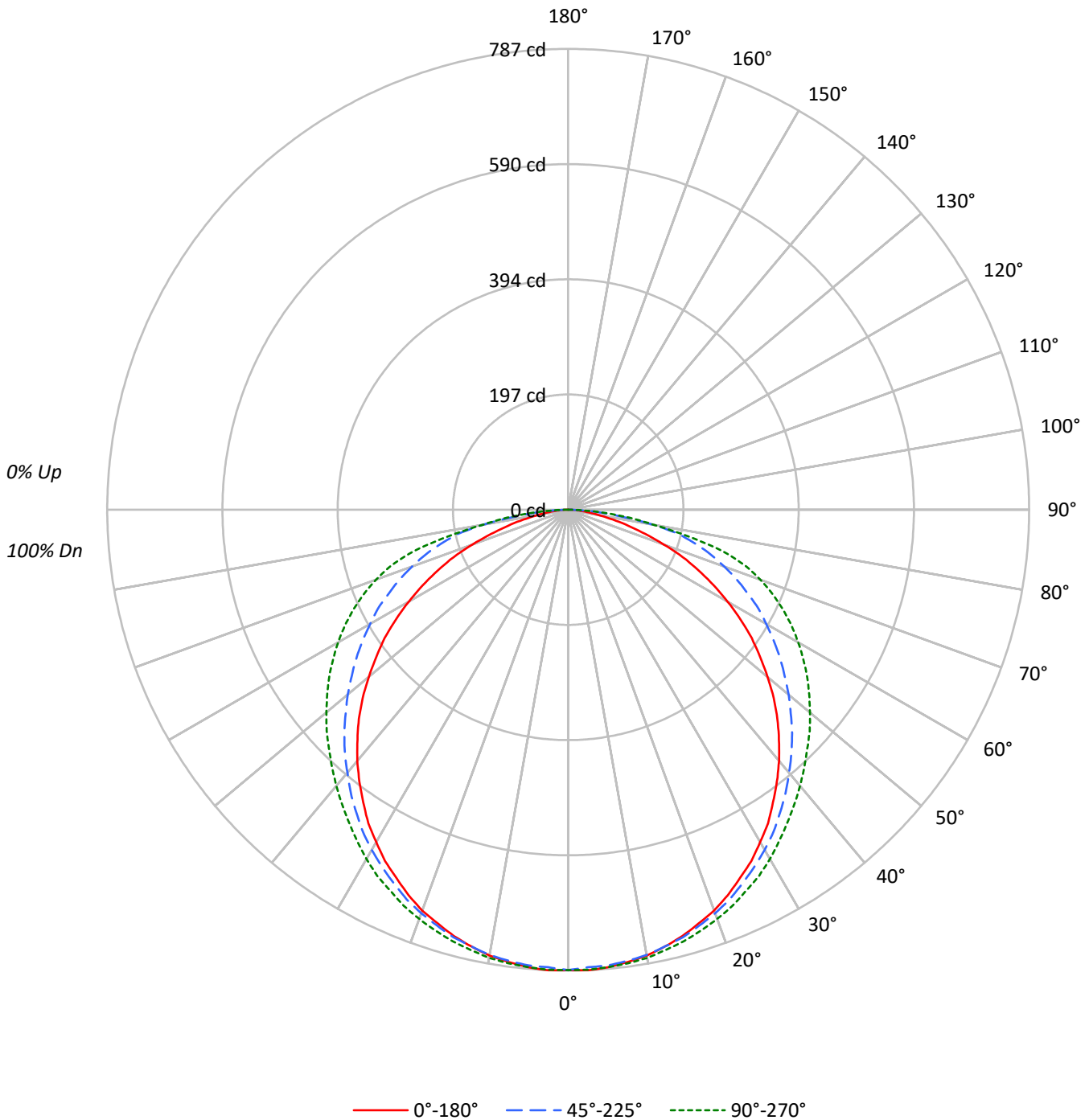
Input Watts (W): 22.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1058	1058	1058
5°	1059	1055	1059
10°	1056	1055	1062
15°	1050	1053	1063
20°	1043	1050	1065
25°	1030	1045	1066
30°	1018	1042	1070
35°	1002	1036	1072
40°	984	1030	1082
45°	961	1029	1098
50°	930	1028	1128
55°	897	1035	1169
60°	846	1051	1220
65°	782	1076	1289
70°	683	1113	1373
75°	554	1171	1419
80°	409	1148	1148
85°	313	846	956



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	3.1
10°-20°	213.9	8.8
20°-30°	325.6	13.4
30°-40°	395.4	16.3
40°-50°	417.7	17.2
50°-60°	394.2	16.3
60°-70°	327.8	13.5
70°-80°	215.6	8.9
80°-90°	58.8	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°	614.0	25.3
0°-40°	1009.4	41.7
0°-60°	1821.3	75.2
0°-90°	2423.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2423.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	784	784	781	784	784	74
15°	754	755	756	763	763	213
25°	694	698	704	716	718	320
35°	610	617	631	647	652	382
45°	505	515	541	567	577	389
55°	382	399	441	483	498	341
65°	246	274	338	388	405	243
75°	106	155	225	267	273	115
85°	20	45	55	61	62	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	786.3	786.3	786.3	786.3	786.3
2.5°	787.3	786.3	782.2	786.3	786.3
5°	784.3	784.3	781.2	784.3	784.3
7.5°	779.2	779.2	777.1	781.2	781.2
10°	773.1	773.1	772.1	777.1	777.1
12.5°	764.0	764.9	764.0	770.0	770.0
15°	753.8	754.8	755.9	763.0	763.0
17.5°	740.7	742.7	744.7	752.8	753.8
20°	728.5	729.4	733.5	742.7	743.7
22.5°	712.3	715.3	720.4	729.4	732.6
25°	693.9	698.0	704.1	716.3	718.3
27.5°	676.7	679.8	687.9	701.1	705.2
30°	655.4	660.5	670.6	683.8	688.9
32.5°	635.1	640.2	652.4	666.5	670.6
35°	609.8	616.9	631.0	647.3	652.4
37.5°	585.4	592.5	609.8	628.0	634.2
40°	560.0	568.1	586.5	607.7	615.8
42.5°	532.6	543.8	564.1	587.4	596.6
45°	505.2	515.4	540.7	567.1	577.3
47.5°	475.9	488.1	515.4	546.9	559.1
50°	444.4	459.6	491.1	525.5	538.8
52.5°	413.0	430.2	465.7	504.2	518.5
55°	382.5	398.7	441.3	483.0	498.2
57.5°	349.0	369.4	416.0	460.6	475.9
60°	314.5	336.9	390.6	437.2	453.5
62.5°	280.0	305.4	366.2	413.0	430.2
65°	245.5	274.0	337.9	387.6	404.9
67.5°	212.0	243.5	311.5	361.2	378.4
70°	173.5	213.1	283.0	331.8	349.0
72.5°	138.0	183.7	255.6	301.4	316.6
75°	106.5	155.3	225.2	266.8	272.9
77.5°	78.1	126.8	193.8	207.9	209.0
80°	52.8	101.4	148.2	146.1	148.2
82.5°	34.5	76.1	93.3	104.5	105.5
85°	20.3	44.7	54.8	60.9	61.9
87.5°	10.1	15.2	19.3	20.3	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)