

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: P474469

Luminaire Tested: **24CZ2-30HE-HRP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474469
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2559.1 lumens
Efficiency: N/A
Efficacy: 114.8 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

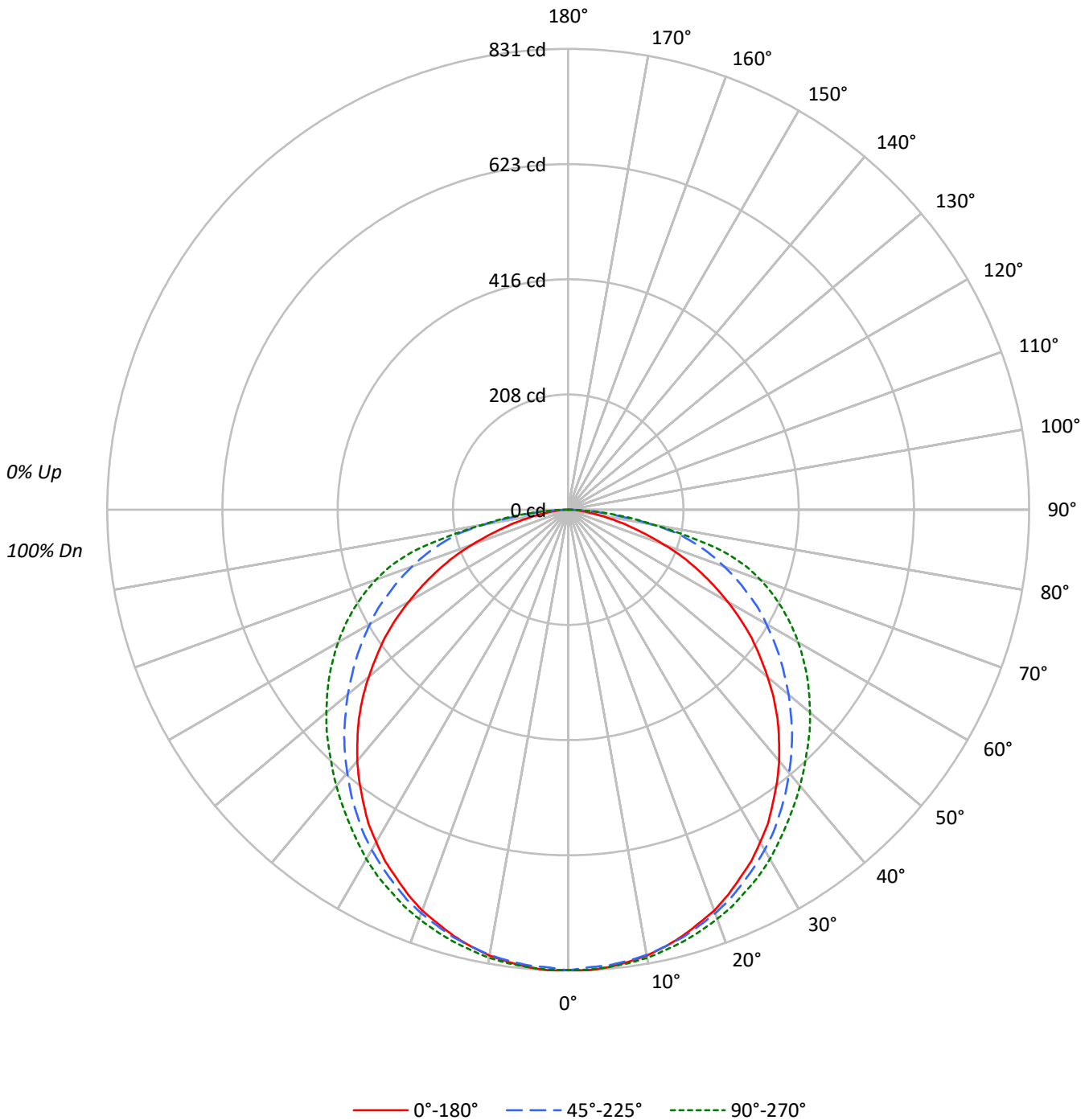
Input Watts (W): 22.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1117	1117	1117
5°	1119	1114	1119
10°	1115	1114	1121
15°	1109	1112	1122
20°	1102	1109	1124
25°	1088	1104	1126
30°	1075	1100	1130
35°	1058	1094	1132
40°	1039	1088	1142
45°	1015	1087	1160
50°	982	1086	1191
55°	947	1093	1234
60°	894	1110	1289
65°	826	1136	1361
70°	721	1176	1450
75°	585	1236	1498
80°	432	1213	1213
85°	330	892	1008



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	3.1
10°-20°	225.9	8.8
20°-30°	343.9	13.4
30°-40°	417.5	16.3
40°-50°	441.1	17.2
50°-60°	416.2	16.3
60°-70°	346.1	13.5
70°-80°	227.7	8.9
80°-90°	62.1	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°	648.4	25.3
0°-40°	1065.9	41.7
0°-60°	1923.2	75.2
0°-90°	2559.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2559.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	828	828	825	828	828	79
15°	796	797	798	806	806	225
25°	733	737	744	756	758	338
35°	644	651	666	684	689	403
45°	534	544	571	599	610	411
55°	404	421	466	510	526	360
65°	259	289	357	409	428	256
75°	112	164	238	282	288	121
85°	21	47	58	64	65	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	830.3	830.3	830.3	830.3	830.3
2.5°	831.4	830.3	826.0	830.3	830.3
5°	828.2	828.2	824.9	828.2	828.2
7.5°	822.8	822.8	820.6	824.9	824.9
10°	816.3	816.3	815.3	820.6	820.6
12.5°	806.8	807.7	806.8	813.1	813.1
15°	796.0	797.1	798.2	805.7	805.7
17.5°	782.1	784.2	786.4	794.9	796.0
20°	769.3	770.3	774.5	784.2	785.3
22.5°	752.1	755.3	760.7	770.3	773.6
25°	732.8	737.0	743.5	756.4	758.5
27.5°	714.6	717.8	726.4	740.3	744.6
30°	692.1	697.5	708.1	722.1	727.5
32.5°	670.6	676.0	688.9	703.8	708.1
35°	643.9	651.4	666.3	683.5	688.9
37.5°	618.2	625.7	643.9	663.2	669.6
40°	591.4	599.9	619.3	641.7	650.3
42.5°	562.4	574.2	595.6	620.3	629.9
45°	533.5	544.3	571.0	598.8	609.6
47.5°	502.5	515.4	544.3	577.5	590.4
50°	469.3	485.4	518.6	555.0	568.9
52.5°	436.1	454.2	491.7	532.4	547.5
55°	403.9	421.0	466.0	510.0	526.0
57.5°	368.6	390.0	439.3	486.3	502.5
60°	332.1	355.7	412.5	461.7	478.9
62.5°	295.7	322.5	386.7	436.1	454.2
65°	259.3	289.3	356.8	409.3	427.5
67.5°	223.9	257.1	328.9	381.4	399.6
70°	183.2	225.0	298.9	350.3	368.6
72.5°	145.7	194.0	269.9	318.2	334.3
75°	112.5	163.9	237.8	281.7	288.2
77.5°	82.5	133.9	204.6	219.6	220.7
80°	55.7	107.1	156.5	154.3	156.5
82.5°	36.4	80.4	98.5	110.4	111.4
85°	21.4	47.2	57.8	64.3	65.3
87.5°	10.7	16.1	20.3	21.4	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)