

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: P473869

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473869  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30HE-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3158.8 lumens  
Efficiency: N/A  
Efficacy: 141.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

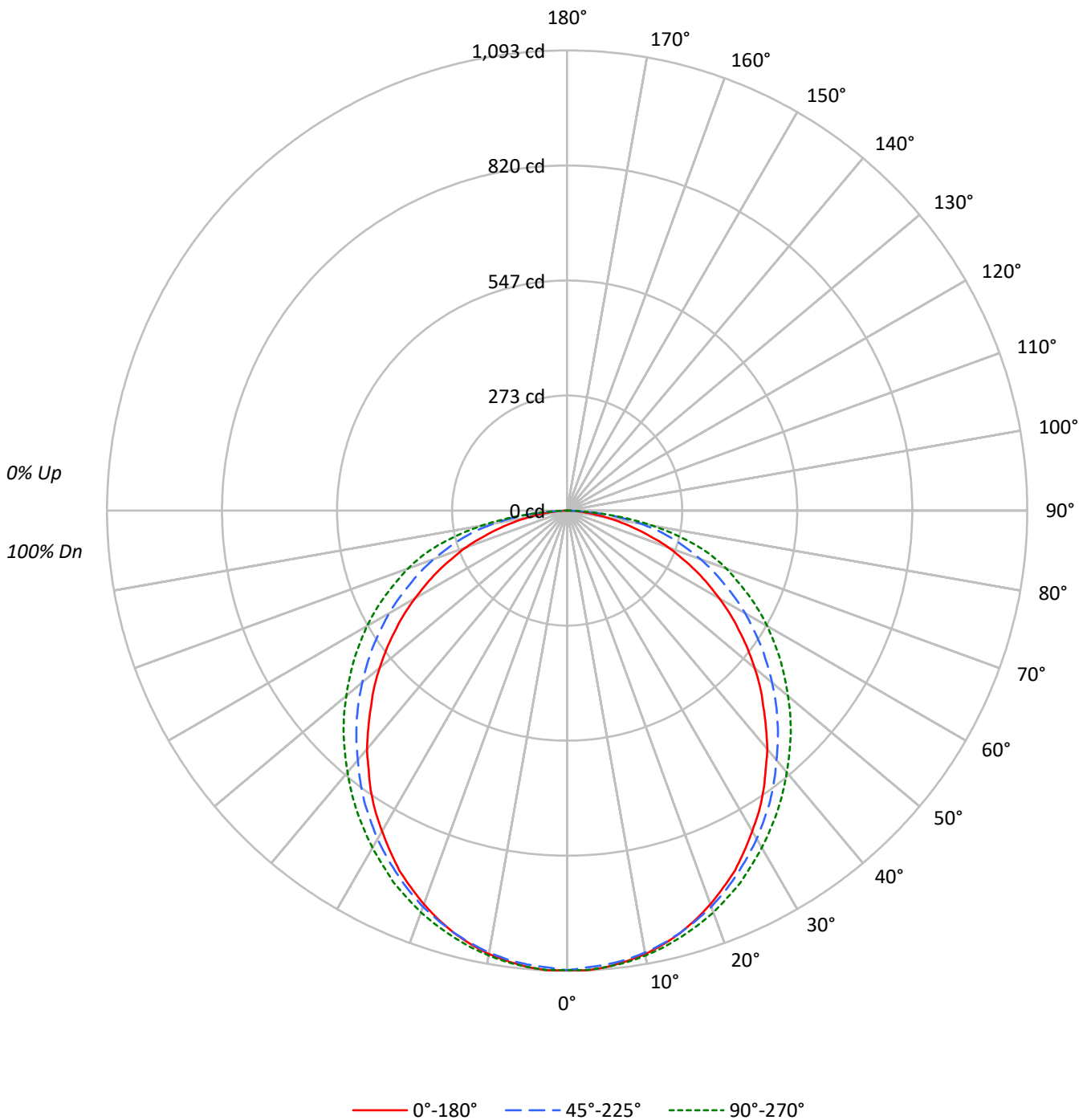
Input Watts (W): 22.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1469	1469	1469
5°	1469	1462	1469
10°	1461	1457	1466
15°	1447	1446	1460
20°	1425	1434	1454
25°	1400	1416	1447
30°	1366	1399	1437
35°	1335	1381	1431
40°	1299	1359	1425
45°	1255	1345	1429
50°	1217	1330	1434
55°	1172	1320	1450
60°	1123	1314	1476
65°	1071	1309	1514
70°	1008	1323	1584
75°	886	1351	1647
80°	739	1361	1589
85°	528	1166	1181



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.2	3.3
10°-20°	293.9	9.3
20°-30°	440.9	14.0
30°-40°	526.4	16.7
40°-50°	545.3	17.3
50°-60°	502.0	15.9
60°-70°	404.9	12.8
70°-80°	264.6	8.4
80°-90°	77.6	2.5
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°	838.0	26.5
0°-40°	1364.5	43.2
0°-60°	2411.7	76.3
0°-90°	3158.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3158.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1092	1092	1092	1092	1092	
5°	1088	1087	1082	1088	1088	103
15°	1038	1038	1038	1048	1048	293
25°	943	945	954	971	975	434
35°	813	820	841	864	871	508
45°	659	676	707	738	751	510
55°	500	521	563	604	618	447
65°	336	359	411	458	476	333
75°	170	203	260	305	317	182
85°	34	59	76	80	76	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1091.6	1091.6	1091.6	1091.6	1091.6
2.5°	1093.1	1091.6	1086.0	1092.6	1092.1
5°	1088.0	1087.0	1082.4	1088.5	1088.0
7.5°	1079.8	1079.3	1075.8	1082.4	1082.4
10°	1069.6	1068.6	1066.1	1073.7	1073.2
12.5°	1055.3	1054.8	1053.3	1062.5	1062.0
15°	1038.5	1038.5	1038.0	1048.2	1048.2
17.5°	1018.1	1018.6	1020.6	1032.4	1032.9
20°	995.1	997.2	1001.3	1014.5	1015.5
22.5°	969.1	973.2	978.8	993.6	995.1
25°	943.1	945.1	953.8	971.1	974.7
27.5°	911.4	916.5	927.8	945.6	949.2
30°	879.3	886.4	900.7	919.1	924.7
32.5°	847.6	853.8	870.6	891.5	898.2
35°	812.9	820.1	841.0	864.0	871.1
37.5°	774.7	785.9	807.8	834.4	842.0
40°	739.5	749.7	773.6	803.2	811.4
42.5°	699.1	711.9	741.0	771.1	781.3
45°	659.3	675.7	706.8	738.4	751.2
47.5°	622.1	635.4	672.1	707.8	719.0
50°	581.3	596.6	635.4	673.1	684.9
52.5°	540.9	559.3	598.6	638.4	651.2
55°	499.6	521.0	562.9	604.2	618.0
57.5°	459.8	481.2	524.6	568.5	582.8
60°	417.4	440.4	488.4	530.7	548.6
62.5°	376.6	399.6	450.1	496.0	512.9
65°	336.3	359.3	411.3	458.3	475.6
67.5°	294.5	319.5	375.1	420.5	437.3
70°	256.2	280.2	336.3	384.8	402.6
72.5°	212.3	240.9	298.0	346.0	362.8
75°	170.4	202.6	259.8	304.7	316.9
77.5°	131.7	163.8	221.0	254.7	262.3
80°	95.4	128.1	175.6	199.0	205.1
82.5°	61.7	95.4	127.1	142.9	144.9
85°	34.2	59.2	75.5	80.1	76.5
87.5°	12.2	22.5	21.9	17.9	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)