

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: P474019

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474019
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

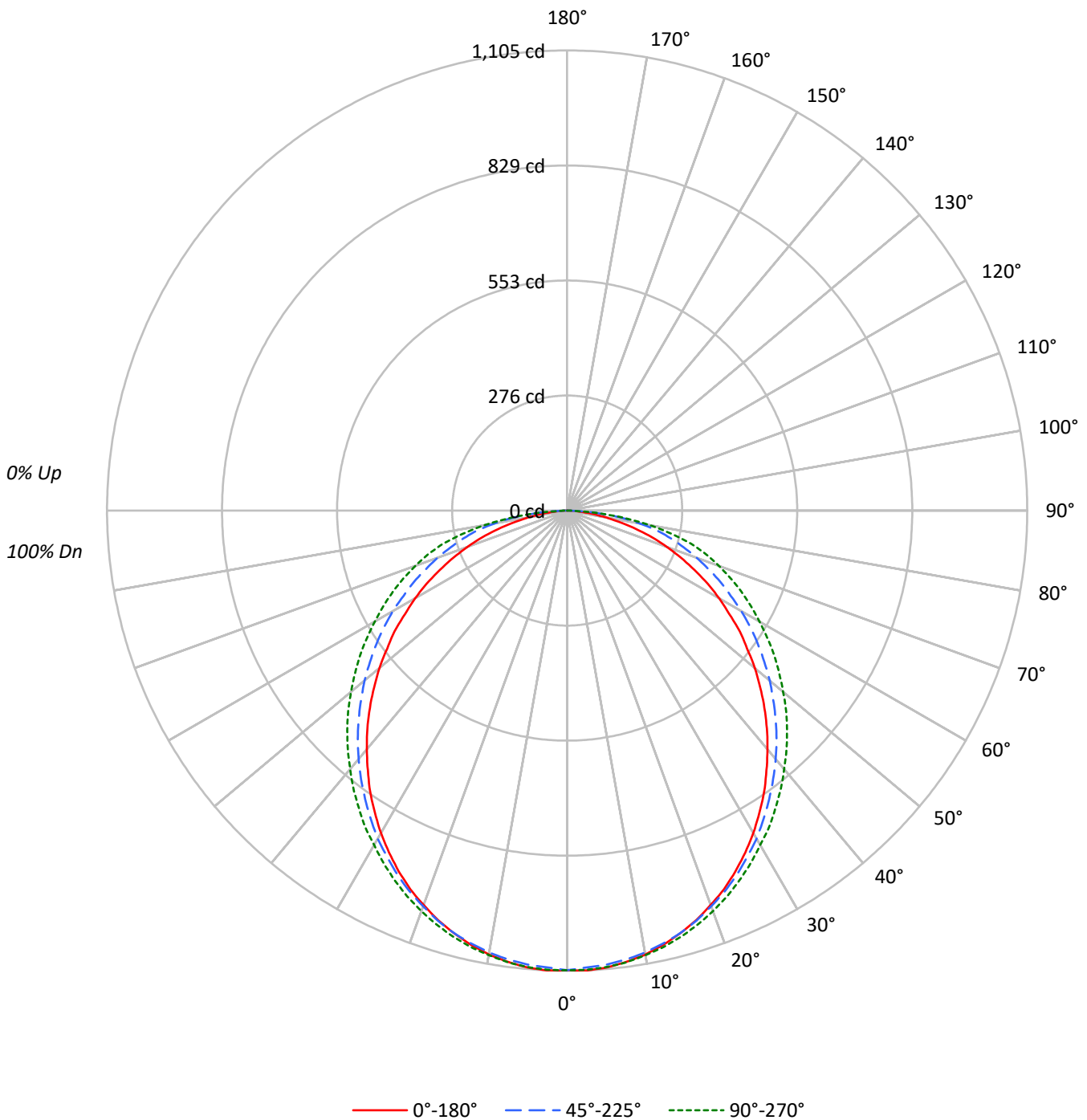
Lumens per Lamp: N/A
Luminaire Lumens: 3162.0 lumens
Efficiency: N/A
Efficacy: 141.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1485	1485	1485
5°	1487	1478	1486
10°	1479	1472	1481
15°	1464	1463	1475
20°	1443	1448	1466
25°	1420	1432	1454
30°	1390	1414	1440
35°	1355	1389	1432
40°	1314	1368	1424
45°	1275	1347	1421
50°	1232	1329	1418
55°	1188	1312	1426
60°	1133	1300	1435
65°	1073	1295	1470
70°	1001	1301	1522
75°	891	1339	1604
80°	728	1368	1565
85°	513	1195	1218



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	3.3
10°-20°	297.2	9.4
20°-30°	445.5	14.1
30°-40°	530.6	16.8
40°-50°	547.1	17.3
50°-60°	499.2	15.8
60°-70°	399.2	12.6
70°-80°	260.7	8.2
80°-90°	78.3	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°	847.0	26.8
0°-40°	1377.6	43.6
0°-60°	2423.8	76.7
0°-90°	3162.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3162.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1101	1099	1094	1101	1100	104
15°	1051	1051	1050	1059	1059	296
25°	956	958	964	978	980	440
35°	825	830	846	867	872	515
45°	670	682	708	738	747	517
55°	506	521	559	596	608	451
65°	337	360	407	447	462	334
75°	171	200	258	299	308	182
85°	33	60	77	79	79	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1103.7	1103.7	1103.7	1103.7	1103.7
2.5°	1105.2	1103.7	1098.0	1104.7	1103.7
5°	1101.1	1099.0	1094.3	1101.1	1100.1
7.5°	1092.8	1091.7	1087.1	1094.9	1093.8
10°	1082.4	1081.4	1077.7	1085.5	1084.0
12.5°	1067.9	1067.3	1064.7	1074.1	1073.0
15°	1050.7	1051.2	1050.2	1059.0	1059.0
17.5°	1031.0	1030.5	1032.5	1043.4	1042.4
20°	1008.1	1008.6	1011.2	1023.7	1023.7
22.5°	984.2	983.7	989.4	1001.9	1002.9
25°	956.2	957.7	964.5	978.5	979.6
27.5°	926.1	928.7	937.0	953.1	954.6
30°	894.4	897.5	910.0	925.0	927.1
32.5°	859.6	866.3	877.8	897.0	902.2
35°	824.8	830.5	845.6	866.8	872.0
37.5°	786.3	795.7	812.8	836.2	843.0
40°	748.4	757.8	779.1	803.5	810.8
42.5°	710.0	719.9	744.3	771.8	779.6
45°	670.0	681.9	707.9	737.5	746.9
47.5°	629.0	643.0	671.0	703.2	713.6
50°	588.5	602.5	634.7	667.9	677.3
52.5°	544.8	562.5	596.8	632.6	642.0
55°	506.4	520.9	559.4	596.3	607.7
57.5°	461.2	480.9	522.0	559.4	570.3
60°	421.2	439.4	483.0	520.9	533.4
62.5°	380.7	399.4	443.0	486.1	497.6
65°	337.1	359.9	406.7	446.7	461.7
67.5°	295.5	319.4	367.2	409.8	425.4
70°	254.5	278.9	330.8	374.5	386.9
72.5°	214.0	239.4	293.5	336.0	350.6
75°	171.4	200.0	257.6	299.2	308.5
77.5°	131.4	163.1	221.3	249.3	256.1
80°	94.0	128.8	176.6	196.8	202.0
82.5°	61.8	95.6	131.9	142.8	141.3
85°	33.2	59.7	77.4	78.9	78.9
87.5°	13.0	23.9	24.4	18.7	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)