

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: P473832

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473832
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

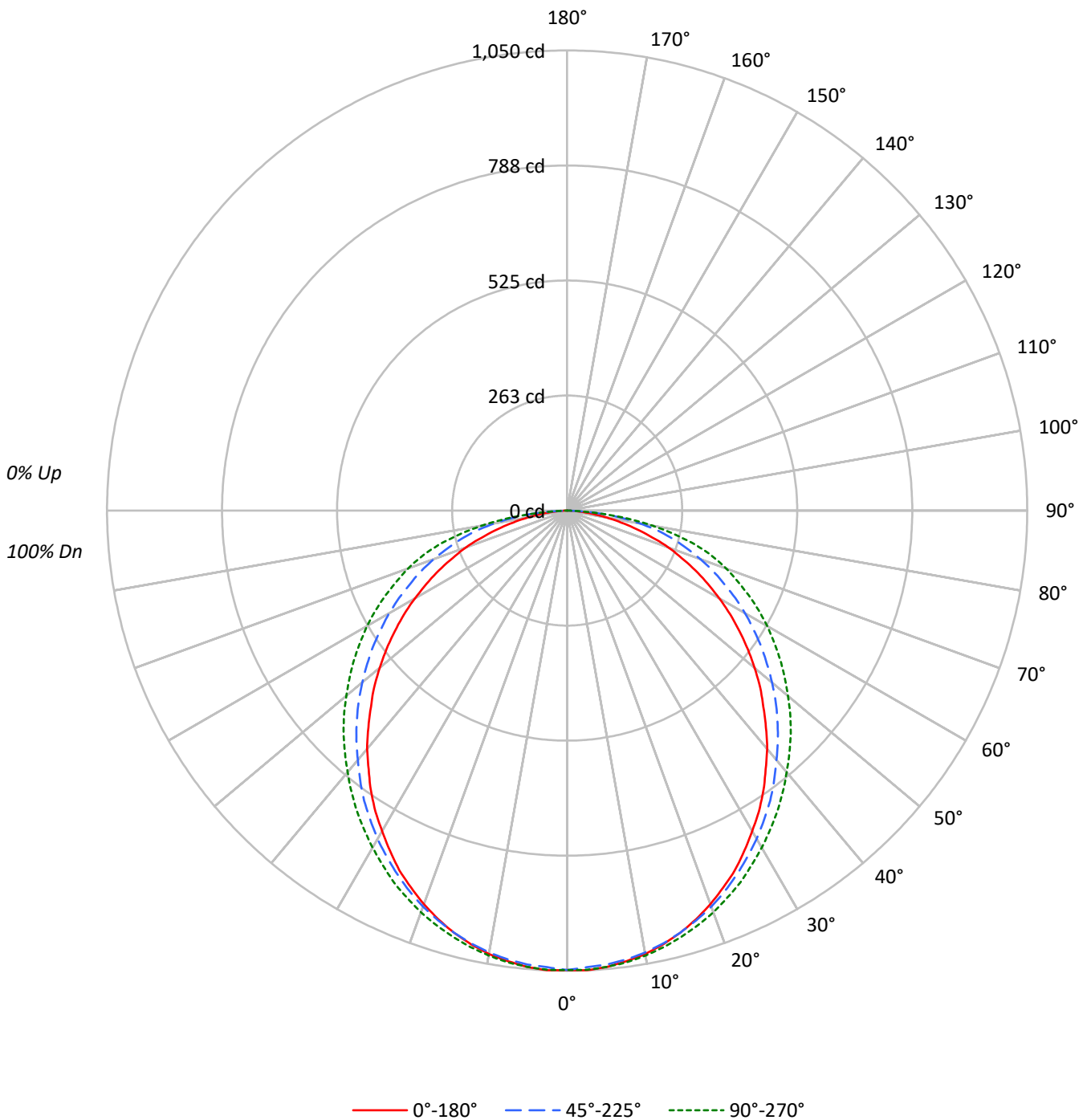
Lumens per Lamp: N/A
Luminaire Lumens: 3034.0 lumens
Efficiency: N/A
Efficacy: 148.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20.5
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°	1411	1411	1411
5°	1411	1404	1411
10°	1404	1399	1408
15°	1389	1389	1402
20°	1369	1377	1397
25°	1345	1360	1390
30°	1312	1344	1380
35°	1282	1327	1374
40°	1247	1305	1369
45°	1205	1292	1373
50°	1169	1277	1377
55°	1126	1268	1392
60°	1079	1262	1418
65°	1028	1258	1454
70°	968	1271	1521
75°	851	1297	1582
80°	711	1306	1526
85°	506	1119	1135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	3.3
10°-20°	282.3	9.3
20°-30°	423.5	14.0
30°-40°	505.6	16.7
40°-50°	523.7	17.3
50°-60°	482.1	15.9
60°-70°	388.9	12.8
70°-80°	254.1	8.4
80°-90°	74.5	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°	804.9	26.5
0°-40°	1310.5	43.2
0°-60°	2316.4	76.3
0°-90°	3034.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3034.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1045	1044	1040	1046	1045	99
15°	997	997	997	1007	1007	281
25°	906	908	916	933	936	416
35°	781	788	808	830	837	488
45°	633	649	679	709	722	490
55°	480	500	541	580	594	429
65°	323	345	395	440	457	319
75°	164	195	250	293	304	175
85°	33	57	72	77	74	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1048.4	1048.4	1048.4	1048.4	1048.4
2.5°	1049.9	1048.4	1043.0	1049.4	1048.9
5°	1045.0	1044.0	1039.6	1045.5	1045.0
7.5°	1037.1	1036.7	1033.2	1039.6	1039.6
10°	1027.3	1026.4	1023.9	1031.3	1030.8
12.5°	1013.6	1013.1	1011.7	1020.5	1020.0
15°	997.4	997.4	997.0	1006.8	1006.8
17.5°	977.8	978.3	980.3	991.6	992.1
20°	955.8	957.7	961.7	974.4	975.4
22.5°	930.8	934.7	940.1	954.3	955.8
25°	905.8	907.7	916.1	932.7	936.2
27.5°	875.4	880.3	891.1	908.2	911.7
30°	844.5	851.4	865.1	882.8	888.1
32.5°	814.1	820.0	836.2	856.3	862.7
35°	780.8	787.7	807.8	829.8	836.7
37.5°	744.0	754.8	775.9	801.4	808.7
40°	710.2	720.0	743.1	771.5	779.3
42.5°	671.5	683.8	711.7	740.6	750.4
45°	633.3	649.0	678.9	709.2	721.5
47.5°	597.5	610.2	645.5	679.8	690.6
50°	558.3	573.0	610.2	646.5	657.8
52.5°	519.6	537.2	574.9	613.2	625.4
55°	479.9	500.4	540.6	580.3	593.6
57.5°	441.6	462.2	503.9	546.0	559.7
60°	400.9	423.0	469.1	509.8	526.9
62.5°	361.7	383.8	432.3	476.4	492.6
65°	323.0	345.1	395.1	440.2	456.8
67.5°	282.8	306.8	360.3	403.9	420.1
70°	246.1	269.1	323.0	369.6	386.7
72.5°	203.9	231.3	286.2	332.3	348.5
75°	163.7	194.6	249.5	292.6	304.4
77.5°	126.5	157.3	212.2	244.6	251.9
80°	91.7	123.0	168.6	191.2	197.0
82.5°	59.3	91.7	122.0	137.2	139.2
85°	32.8	56.9	72.5	77.0	73.5
87.5°	11.8	21.6	21.1	17.2	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)