

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: P474622

Luminaire Tested: **24CZ2-45HE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474622
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45HE-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4476.7 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

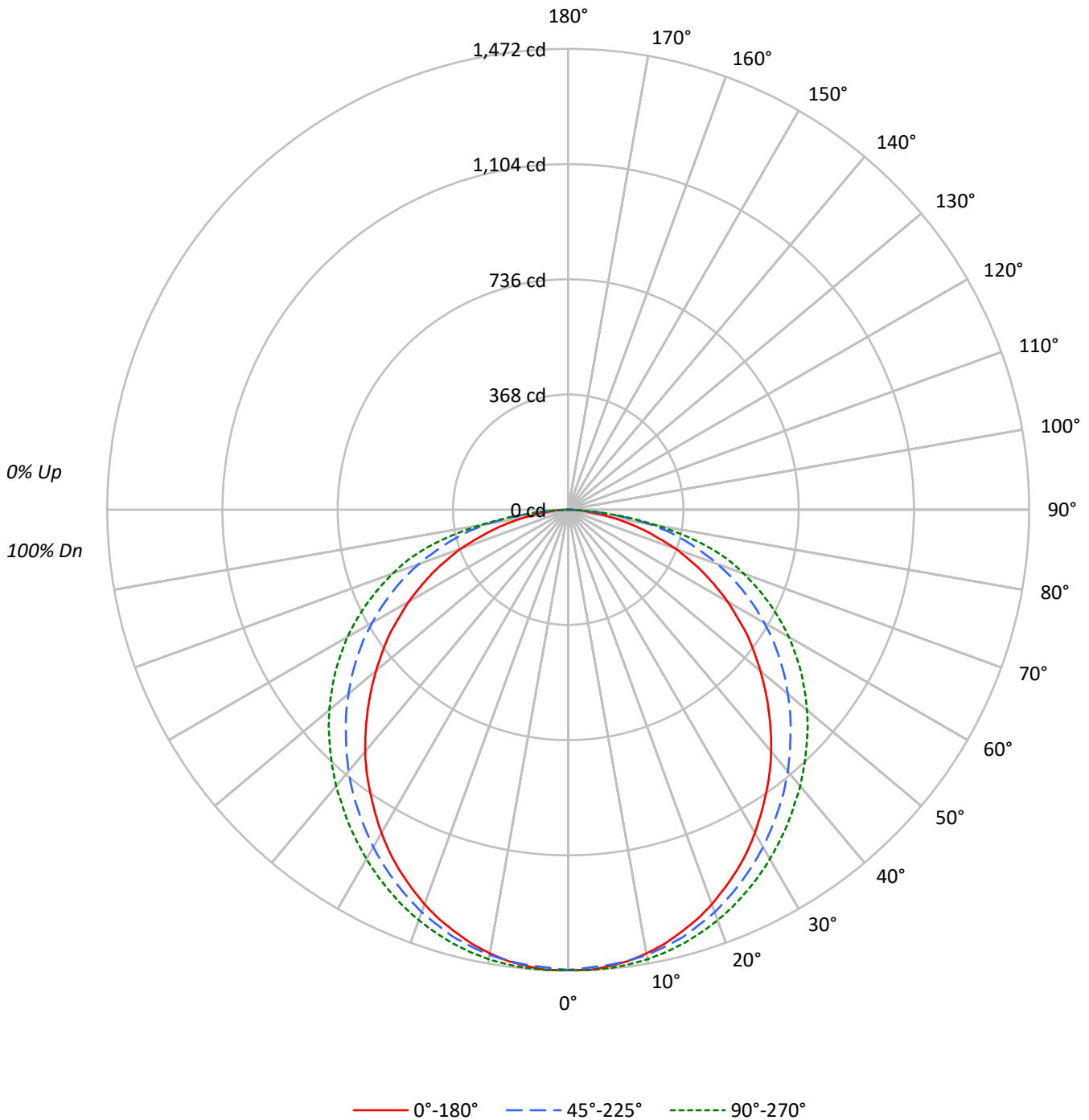
Input Watts (W): 35.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3957	3957	3957
5°	3957	3945	3972
10°	3932	3946	3985
15°	3889	3937	3991
20°	3840	3918	3996
25°	3778	3890	3996
30°	3704	3867	4002
35°	3620	3844	4018
40°	3542	3831	4050
45°	3446	3821	4094
50°	3353	3832	4168
55°	3275	3859	4261
60°	3164	3887	4380
65°	3037	3934	4513
70°	2881	3990	4693
75°	2581	4046	4848
80°	2173	4057	4400
85°	1612	3069	2893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.4	3.1
10°-20°	399.4	8.9
20°-30°	604.6	13.5
30°-40°	731.3	16.3
40°-50°	772.0	17.2
50°-60°	728.0	16.3
60°-70°	600.2	13.4
70°-80°	393.7	8.8
80°-90°	108.3	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°	1143.3	25.5
0°-40°	1874.6	41.9
0°-60°	3374.5	75.4
0°-90°	4476.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4476.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1470	1470	1470	1470	1470	
5°	1465	1465	1460	1470	1470	139
15°	1396	1404	1413	1430	1432	394
25°	1272	1288	1310	1337	1346	586
35°	1102	1131	1170	1210	1223	690
45°	905	946	1004	1058	1076	699
55°	698	747	822	884	908	622
65°	477	534	618	684	709	471
75°	248	312	389	451	466	262
85°	52	90	99	97	94	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1470.4	1470.4	1470.4	1470.4	1470.4
2.5°	1471.9	1470.4	1464.0	1472.6	1471.9
5°	1464.7	1464.7	1460.4	1470.4	1470.4
7.5°	1454.7	1455.4	1454.0	1465.4	1465.4
10°	1439.0	1441.8	1444.0	1456.9	1458.3
12.5°	1420.4	1425.4	1429.7	1445.4	1446.8
15°	1396.1	1403.9	1413.2	1429.7	1432.5
17.5°	1371.0	1380.3	1390.3	1411.8	1415.4
20°	1341.0	1351.7	1368.2	1389.6	1395.3
22.5°	1307.4	1322.4	1339.6	1365.3	1372.5
25°	1272.3	1288.1	1310.2	1337.4	1346.0
27.5°	1234.4	1253.0	1278.1	1309.5	1318.8
30°	1192.2	1213.7	1244.4	1278.1	1288.1
32.5°	1147.9	1172.9	1207.2	1244.4	1255.9
35°	1102.1	1130.7	1170.1	1210.1	1223.0
37.5°	1057.1	1085.7	1132.2	1174.3	1186.5
40°	1008.4	1039.9	1090.7	1135.7	1152.9
42.5°	956.9	994.1	1047.8	1097.8	1114.3
45°	905.4	946.2	1004.1	1057.8	1075.7
47.5°	853.2	898.3	961.9	1016.3	1037.0
50°	801.0	848.9	915.4	974.1	995.6
52.5°	748.1	798.2	870.4	932.6	951.9
55°	698.0	747.4	822.5	884.0	908.3
57.5°	640.1	695.9	775.3	837.5	861.1
60°	587.9	642.2	722.3	788.1	813.9
62.5°	531.4	587.2	671.6	737.4	762.4
65°	477.0	534.3	617.9	683.7	708.8
67.5°	418.4	478.5	564.3	627.9	652.3
70°	366.2	422.7	507.1	572.2	596.5
72.5°	302.5	366.9	447.7	512.1	538.5
75°	248.2	311.8	389.1	450.6	466.3
77.5°	191.0	254.6	331.1	371.2	381.9
80°	140.2	200.3	261.8	283.2	283.9
82.5°	94.4	147.3	182.4	193.1	191.7
85°	52.2	90.1	99.4	96.6	93.7
87.5°	21.5	30.0	24.3	17.2	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)