

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: P474020

Luminaire Tested: **24CZ2-35HE-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474020
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35HE-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

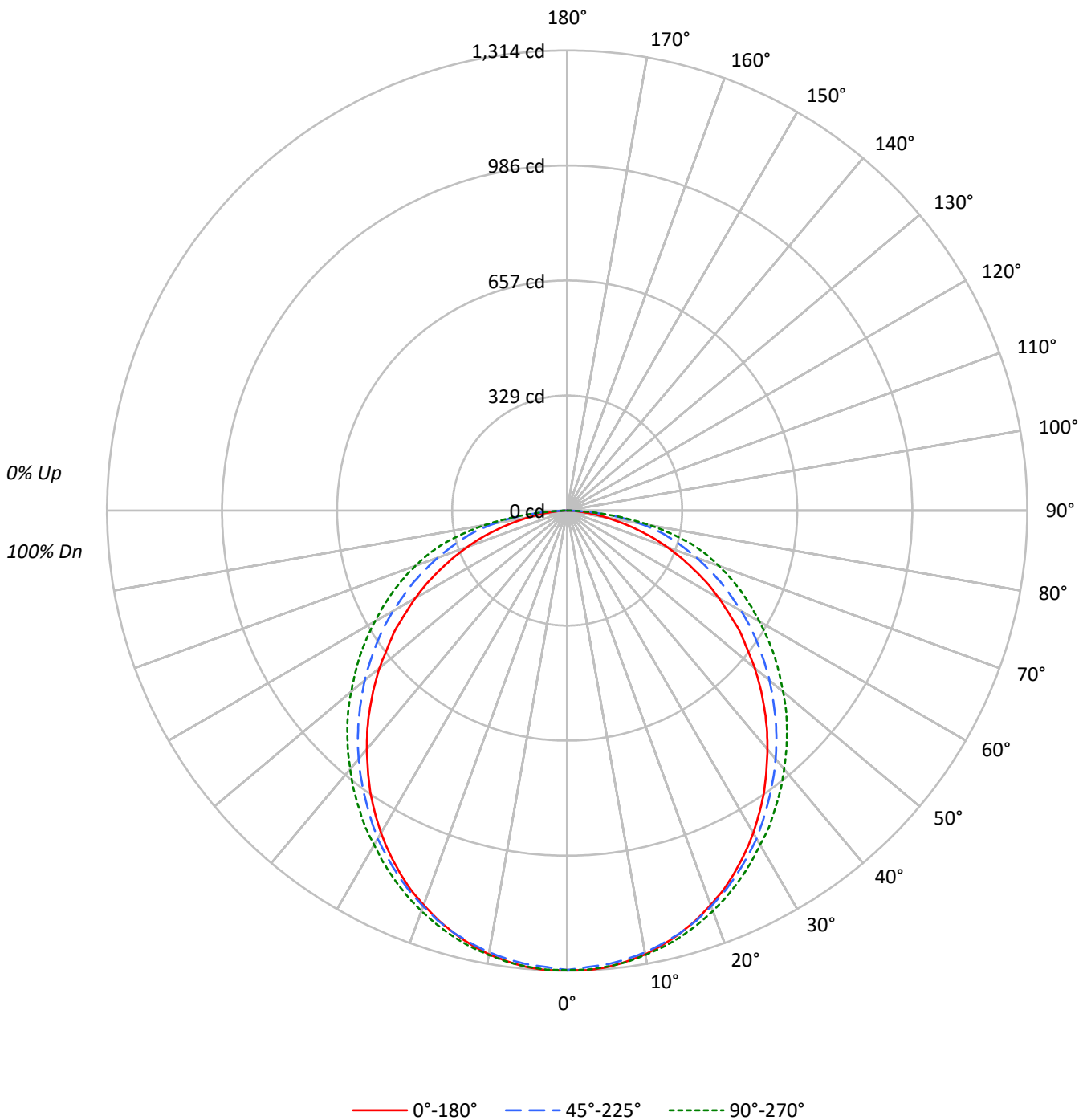
Lumens per Lamp: N/A
Luminaire Lumens: 3758.7 lumens
Efficiency: N/A
Efficacy: 139.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27
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°	1765	1765	1765
5°	1768	1757	1766
10°	1758	1750	1760
15°	1740	1739	1754
20°	1716	1721	1742
25°	1687	1702	1729
30°	1652	1681	1712
35°	1610	1651	1703
40°	1563	1627	1693
45°	1515	1601	1689
50°	1464	1579	1685
55°	1412	1560	1695
60°	1347	1545	1706
65°	1276	1539	1748
70°	1190	1547	1810
75°	1059	1592	1906
80°	865	1626	1861
85°	610	1420	1448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	3.3
10°-20°	353.3	9.4
20°-30°	529.5	14.1
30°-40°	630.7	16.8
40°-50°	650.3	17.3
50°-60°	593.4	15.8
60°-70°	474.5	12.6
70°-80°	309.9	8.2
80°-90°	93.1	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°	1006.8	26.8
0°-40°	1637.5	43.6
0°-60°	2881.2	76.7
0°-90°	3758.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3758.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1309	1306	1301	1309	1308	124
15°	1249	1250	1248	1259	1259	352
25°	1137	1138	1146	1163	1164	523
35°	980	987	1005	1030	1037	612
45°	796	811	842	877	888	614
55°	602	619	665	709	722	536
65°	401	428	483	531	549	397
75°	204	238	306	356	367	216
85°	40	71	92	94	94	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1312.0	1312.0	1312.0	1312.0	1312.0
2.5°	1313.8	1312.0	1305.2	1313.2	1312.0
5°	1308.9	1306.4	1300.9	1308.9	1307.6
7.5°	1299.0	1297.8	1292.2	1301.5	1300.2
10°	1286.7	1285.4	1281.1	1290.4	1288.5
12.5°	1269.4	1268.7	1265.7	1276.8	1275.5
15°	1249.0	1249.6	1248.4	1258.9	1258.9
17.5°	1225.5	1224.9	1227.4	1240.3	1239.1
20°	1198.4	1199.0	1202.1	1216.9	1216.9
22.5°	1170.0	1169.3	1176.1	1191.0	1192.2
25°	1136.6	1138.5	1146.5	1163.2	1164.4
27.5°	1100.8	1103.9	1113.8	1132.9	1134.8
30°	1063.2	1066.9	1081.7	1099.6	1102.0
32.5°	1021.8	1029.8	1043.4	1066.2	1072.4
35°	980.4	987.2	1005.1	1030.4	1036.6
37.5°	934.7	945.8	966.2	994.0	1002.0
40°	889.7	900.8	926.1	955.1	963.8
42.5°	844.0	855.7	884.7	917.4	926.7
45°	796.4	810.6	841.5	876.7	887.8
47.5°	747.7	764.3	797.7	836.0	848.3
50°	699.5	716.2	754.5	794.0	805.1
52.5°	647.6	668.6	709.4	752.0	763.1
55°	602.0	619.2	664.9	708.8	722.4
57.5°	548.2	571.7	620.5	664.9	677.9
60°	500.7	522.3	574.2	619.2	634.1
62.5°	452.6	474.8	526.6	577.9	591.5
65°	400.7	427.9	483.4	531.0	548.9
67.5°	351.3	379.7	436.5	487.1	505.6
70°	302.5	331.5	393.3	445.1	460.0
72.5°	254.4	284.6	348.8	399.5	416.7
75°	203.7	237.7	306.2	355.6	366.7
77.5°	156.2	193.9	263.0	296.3	304.4
80°	111.7	153.1	209.9	234.0	240.2
82.5°	73.5	113.6	156.8	169.8	167.9
85°	39.5	71.0	92.0	93.8	93.8
87.5°	15.4	28.4	29.0	22.2	21.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)