

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: P474033

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474033
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3612.9 lumens
Efficiency: N/A
Efficacy: 151.2 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

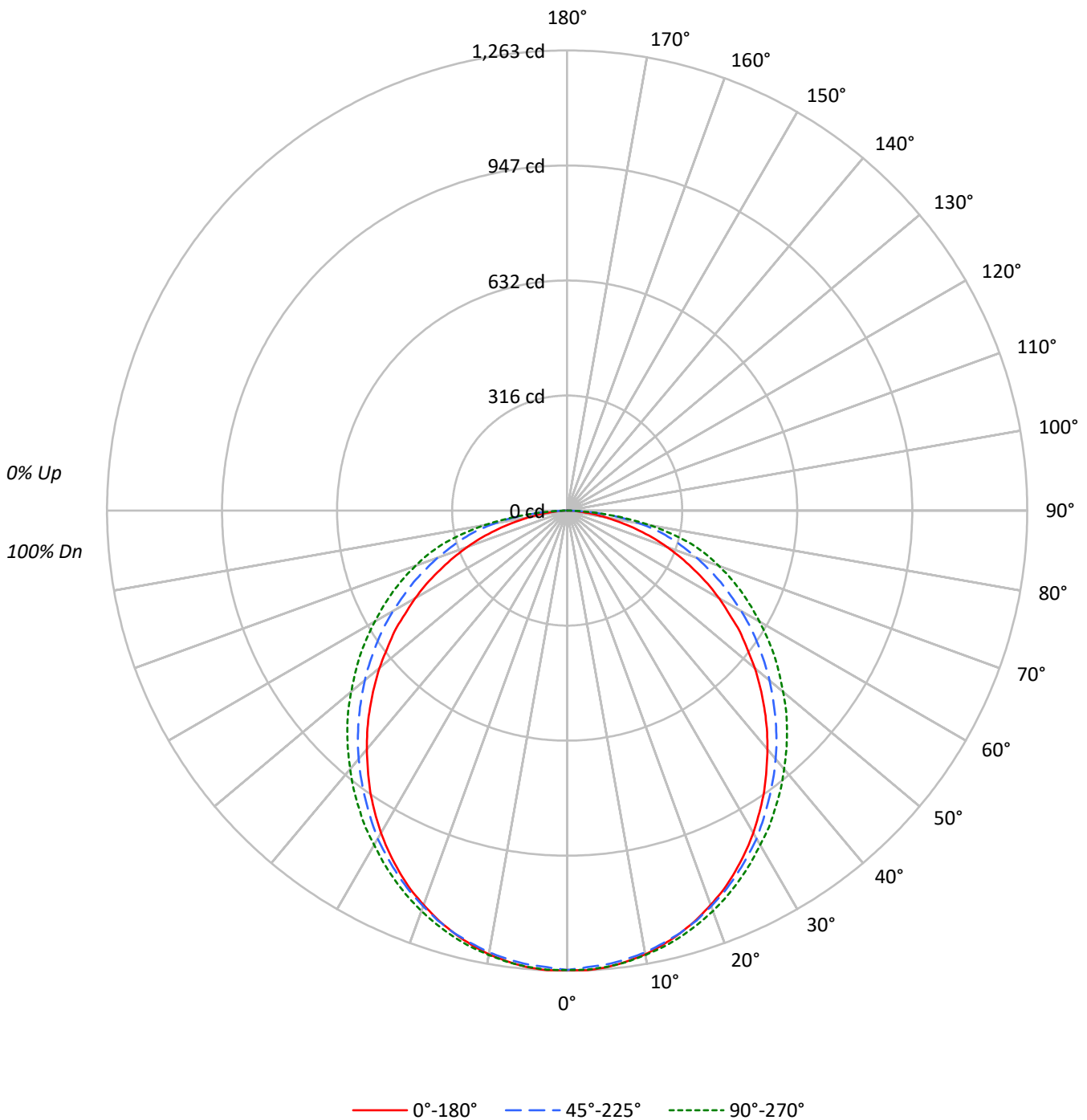
Input Watts (W): 23.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1697	1697	1697
5°	1699	1689	1698
10°	1690	1682	1692
15°	1672	1671	1685
20°	1649	1654	1675
25°	1622	1636	1662
30°	1588	1615	1646
35°	1548	1587	1637
40°	1502	1564	1627
45°	1457	1539	1624
50°	1407	1518	1620
55°	1357	1499	1629
60°	1295	1485	1640
65°	1226	1479	1680
70°	1144	1487	1739
75°	1018	1530	1832
80°	832	1564	1788
85°	587	1365	1392



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.2	3.3
10°-20°	339.6	9.4
20°-30°	509.0	14.1
30°-40°	606.2	16.8
40°-50°	625.1	17.3
50°-60°	570.4	15.8
60°-70°	456.1	12.6
70°-80°	297.9	8.2
80°-90°	89.4	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°	967.8	26.8
0°-40°	1574.0	43.6
0°-60°	2769.4	76.7
0°-90°	3612.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3612.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1261	1261	1261	1261	1261	
5°	1258	1256	1250	1258	1257	119
15°	1200	1201	1200	1210	1210	338
25°	1092	1094	1102	1118	1119	503
35°	942	949	966	990	996	589
45°	766	779	809	843	853	590
55°	579	595	639	681	694	515
65°	385	411	465	510	528	382
75°	196	228	294	342	352	208
85°	38	68	88	90	90	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1261.1	1261.1	1261.1	1261.1	1261.1
2.5°	1262.8	1261.1	1254.5	1262.2	1261.1
5°	1258.1	1255.7	1250.4	1258.1	1256.9
7.5°	1248.6	1247.4	1242.1	1251.0	1249.8
10°	1236.7	1235.5	1231.4	1240.3	1238.5
12.5°	1220.1	1219.5	1216.5	1227.2	1226.0
15°	1200.5	1201.1	1199.9	1210.0	1210.0
17.5°	1178.0	1177.4	1179.8	1192.2	1191.0
20°	1151.9	1152.5	1155.4	1169.7	1169.7
22.5°	1124.6	1124.0	1130.5	1144.7	1145.9
25°	1092.5	1094.3	1102.0	1118.0	1119.2
27.5°	1058.1	1061.1	1070.6	1089.0	1090.7
30°	1021.9	1025.5	1039.7	1056.9	1059.3
32.5°	982.1	989.9	1002.9	1024.9	1030.8
35°	942.4	948.9	966.1	990.4	996.4
37.5°	898.5	909.1	928.7	955.4	963.1
40°	855.1	865.8	890.2	918.0	926.4
42.5°	811.2	822.5	850.4	881.8	890.7
45°	765.5	779.2	808.9	842.7	853.4
47.5°	718.7	734.7	766.7	803.5	815.4
50°	672.4	688.4	725.2	763.2	773.8
52.5°	622.5	642.7	681.9	722.8	733.5
55°	578.6	595.2	639.1	681.3	694.3
57.5°	527.0	549.5	596.4	639.1	651.6
60°	481.3	502.0	551.9	595.2	609.5
62.5°	435.0	456.4	506.2	555.5	568.5
65°	385.1	411.3	464.7	510.4	527.6
67.5°	337.7	365.0	419.6	468.2	486.0
70°	290.8	318.7	378.0	427.9	442.1
72.5°	244.5	273.6	335.3	384.0	400.6
75°	195.8	228.5	294.3	341.8	352.5
77.5°	150.1	186.3	252.8	284.8	292.6
80°	107.4	147.2	201.8	224.9	230.8
82.5°	70.6	109.2	150.7	163.2	161.4
85°	38.0	68.2	88.4	90.2	90.2
87.5°	14.8	27.3	27.9	21.4	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)