

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: P474237

Luminaire Tested: **24CZ2-60VHE-RDP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474237  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60VHE-RDP-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4024.7 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

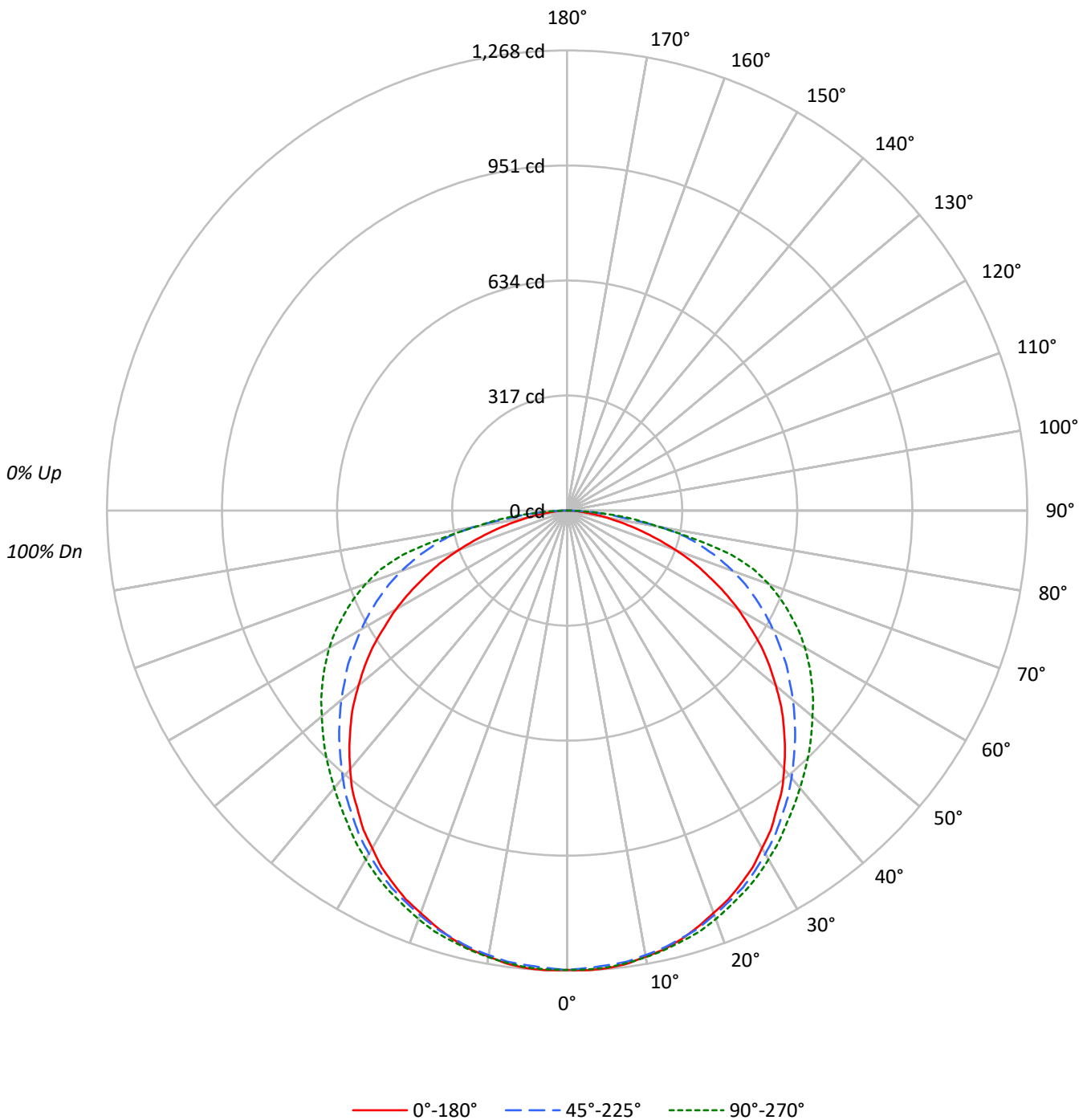
Input Watts (W): 40.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89		92	89	87		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1703	1703	1703
5°	1709	1699	1707
10°	1705	1699	1708
15°	1702	1699	1710
20°	1689	1698	1715
25°	1683	1701	1719
30°	1669	1697	1724
35°	1653	1692	1731
40°	1634	1690	1753
45°	1607	1690	1793
50°	1571	1701	1847
55°	1531	1728	1929
60°	1467	1762	2036
65°	1373	1824	2161
70°	1249	1909	2324
75°	1058	2013	2429
80°	836	2026	1964
85°	616	1542	1727



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.1	3.0
10°-20°	345.5	8.6
20°-30°	528.4	13.1
30°-40°	645.9	16.0
40°-50°	688.5	17.1
50°-60°	658.2	16.4
60°-70°	557.6	13.9
70°-80°	374.8	9.3
80°-90°	105.8	2.6
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°	994.0	24.7
0°-40°	1639.9	40.7
0°-60°	2986.6	74.2
0°-90°	4024.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4024.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1266	1266	1266	1266	1266	
5°	1266	1264	1258	1264	1264	120
15°	1222	1222	1220	1230	1228	344
25°	1134	1138	1146	1156	1158	523
35°	1006	1014	1030	1050	1054	630
45°	844	858	888	926	942	651
55°	653	677	737	795	822	581
65°	431	475	573	649	679	428
75°	204	277	387	453	467	218
85°	40	82	100	108	112	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1265.7	1265.7	1265.7	1265.7	1265.7
2.5°	1267.7	1267.7	1261.7	1265.7	1265.7
5°	1265.7	1263.7	1257.7	1263.7	1263.7
7.5°	1259.7	1257.7	1253.7	1259.7	1257.7
10°	1247.8	1247.8	1243.8	1249.8	1249.8
12.5°	1237.8	1235.8	1233.8	1241.8	1239.8
15°	1221.8	1221.8	1219.8	1229.8	1227.8
17.5°	1201.8	1203.8	1205.8	1213.8	1215.8
20°	1179.8	1183.8	1185.8	1197.8	1197.8
22.5°	1159.9	1161.9	1165.9	1177.8	1177.8
25°	1133.9	1137.9	1145.9	1155.9	1157.9
27.5°	1107.9	1109.9	1119.9	1133.9	1135.9
30°	1074.0	1080.0	1092.0	1107.9	1109.9
32.5°	1044.0	1050.0	1064.0	1080.0	1084.0
35°	1006.1	1014.1	1030.0	1050.0	1054.0
37.5°	972.1	978.1	998.1	1020.1	1026.0
40°	930.4	942.2	962.1	988.1	998.1
42.5°	888.4	900.4	924.4	958.1	970.1
45°	844.5	858.5	888.4	926.4	942.2
47.5°	800.5	816.5	850.5	894.4	912.4
50°	750.6	770.6	812.5	862.5	882.4
52.5°	702.7	726.6	772.6	828.5	854.5
55°	652.7	676.7	736.6	794.6	822.5
57.5°	596.8	628.8	694.7	760.6	790.6
60°	545.1	574.8	654.7	726.6	756.6
62.5°	489.2	529.1	614.8	690.7	720.6
65°	431.2	475.2	572.8	648.7	678.7
67.5°	379.3	427.2	531.1	606.8	636.8
70°	317.4	377.3	485.2	560.9	590.8
72.5°	259.5	325.4	437.2	511.1	539.1
75°	203.5	277.4	387.3	453.2	467.2
77.5°	151.8	229.5	335.4	363.3	353.3
80°	107.9	183.8	261.5	247.5	253.5
82.5°	69.9	139.8	161.8	183.8	189.5
85°	39.9	81.9	99.9	107.9	111.9
87.5°	18.0	30.0	39.9	39.9	37.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)