

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: P293545

Luminaire Tested: **24GR-LD5-34-A-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293545  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-34-A-UNV-L93050-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3002.0 lumens  
Efficiency: N/A  
Efficacy: 128.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

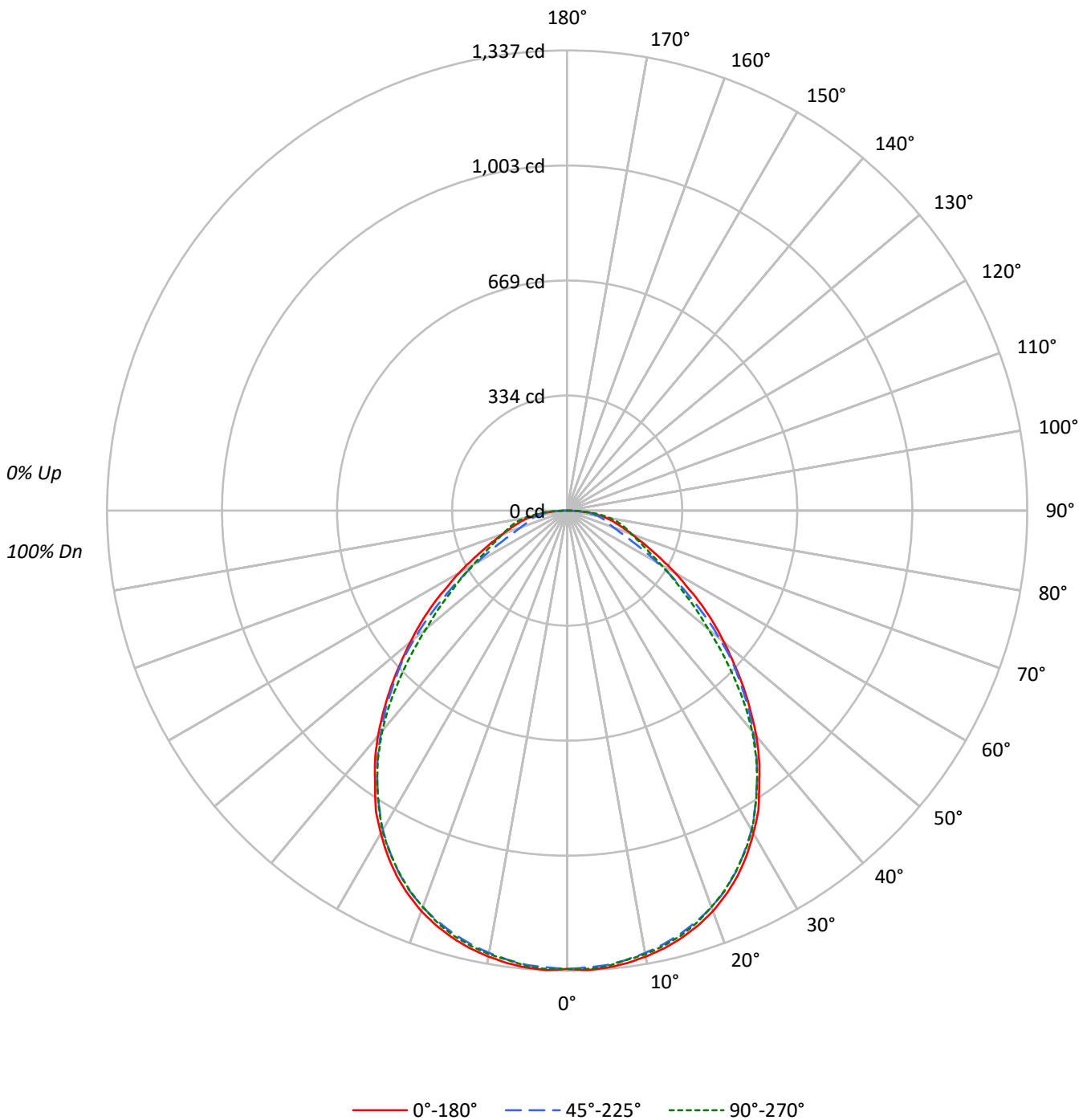
Input Watts (W): 23.407449  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P293545

CATALOG NUMBER: 24GR-LD5-34-A-UNV-L93050-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P293545

CATALOG NUMBER: 24GR-LD5-34-A-UNV-L93050-W2A1-U-3500K

**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	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					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63					63			
4	86	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55					55			
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49					49			
6	73	61	53	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43					43			
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39					39			
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35					35			
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	38	33	32					32			
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30	29					29			

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

	0°	45°	90°
0°	1792	1792	1792
5°	1801	1791	1795
10°	1798	1783	1788
15°	1791	1773	1780
20°	1774	1756	1755
25°	1739	1721	1719
30°	1682	1664	1668
35°	1597	1579	1581
40°	1502	1476	1467
45°	1377	1358	1304
50°	1245	1211	1119
55°	1117	1017	965
60°	978	819	849
65°	854	644	781
70°	781	562	781
75°	781	598	861
80°	848	704	981
85°	931	795	1053



TEST NUMBER: P293545

CATALOG NUMBER: 24GR-LD5-34-A-UNV-L93050-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.1	4.2
10°-20°	360.0	12.0
20°-30°	533.7	17.8
30°-40°	602.1	20.1
40°-50°	545.3	18.2
50°-60°	393.4	13.1
60°-70°	234.9	7.8
70°-80°	145.2	4.8
80°-90°	61.2	2.0
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°	1019.8	34.0
0°-40°	1622.0	54.0
0°-60°	2560.7	85.3
0°-90°	3002.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3002.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1332	1332	1332	1332	1332	
5°	1333	1332	1326	1324	1329	127
15°	1286	1278	1273	1273	1278	362
25°	1172	1165	1159	1155	1158	538
35°	972	971	961	962	963	608
45°	724	719	714	696	686	558
55°	476	462	434	412	411	425
65°	268	236	202	230	245	270
75°	150	130	115	143	166	160
85°	60	53	52	67	68	63
90°	0	0	0	0	0	



TEST NUMBER: P293545

CATALOG NUMBER: 24GR-LD5-34-A-UNV-L93050-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1332.0	1332.0	1332.0	1332.0	1332.0
2.5°	1336.6	1332.9	1328.2	1331.0	1333.3
5°	1333.3	1331.5	1325.9	1324.5	1329.2
7.5°	1326.4	1321.7	1316.6	1319.0	1317.1
10°	1315.7	1311.5	1305.1	1305.5	1308.8
12.5°	1302.7	1297.6	1290.7	1292.5	1295.3
15°	1285.6	1277.7	1272.6	1273.1	1278.2
17.5°	1263.8	1257.7	1251.3	1252.6	1255.0
20°	1238.7	1235.5	1226.2	1223.4	1225.7
22.5°	1207.2	1201.2	1196.1	1194.7	1195.1
25°	1171.5	1165.0	1159.0	1154.8	1158.0
27.5°	1129.7	1124.2	1116.3	1114.9	1117.7
30°	1082.4	1078.3	1071.3	1069.5	1073.6
32.5°	1034.2	1027.3	1017.5	1017.5	1018.4
35°	972.5	971.1	961.4	961.9	962.8
37.5°	916.9	910.4	904.8	899.3	902.0
40°	855.2	847.8	840.4	836.6	835.3
42.5°	788.9	783.3	780.1	766.6	763.4
45°	723.5	718.8	713.7	696.1	685.5
47.5°	656.7	655.8	651.6	620.5	609.9
50°	594.6	593.2	578.3	545.4	534.7
52.5°	535.7	526.4	506.9	474.4	472.6
55°	476.3	461.5	433.6	412.3	411.4
57.5°	413.7	396.1	367.8	356.2	362.2
60°	363.6	336.7	304.2	305.6	315.4
62.5°	311.7	281.5	249.5	263.4	275.0
65°	268.1	236.1	202.2	229.6	245.3
67.5°	230.0	200.3	167.9	204.5	219.8
70°	198.5	174.4	142.8	181.3	198.5
72.5°	173.5	151.2	126.6	162.8	182.7
75°	150.3	130.3	115.0	143.3	165.6
77.5°	130.3	110.8	103.9	126.6	148.4
80°	109.5	91.8	90.9	110.4	126.6
82.5°	85.3	73.3	73.3	92.3	102.0
85°	60.3	52.9	51.5	67.2	68.2
87.5°	31.1	29.7	26.9	35.2	35.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)