

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: P294048

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-3000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2643.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

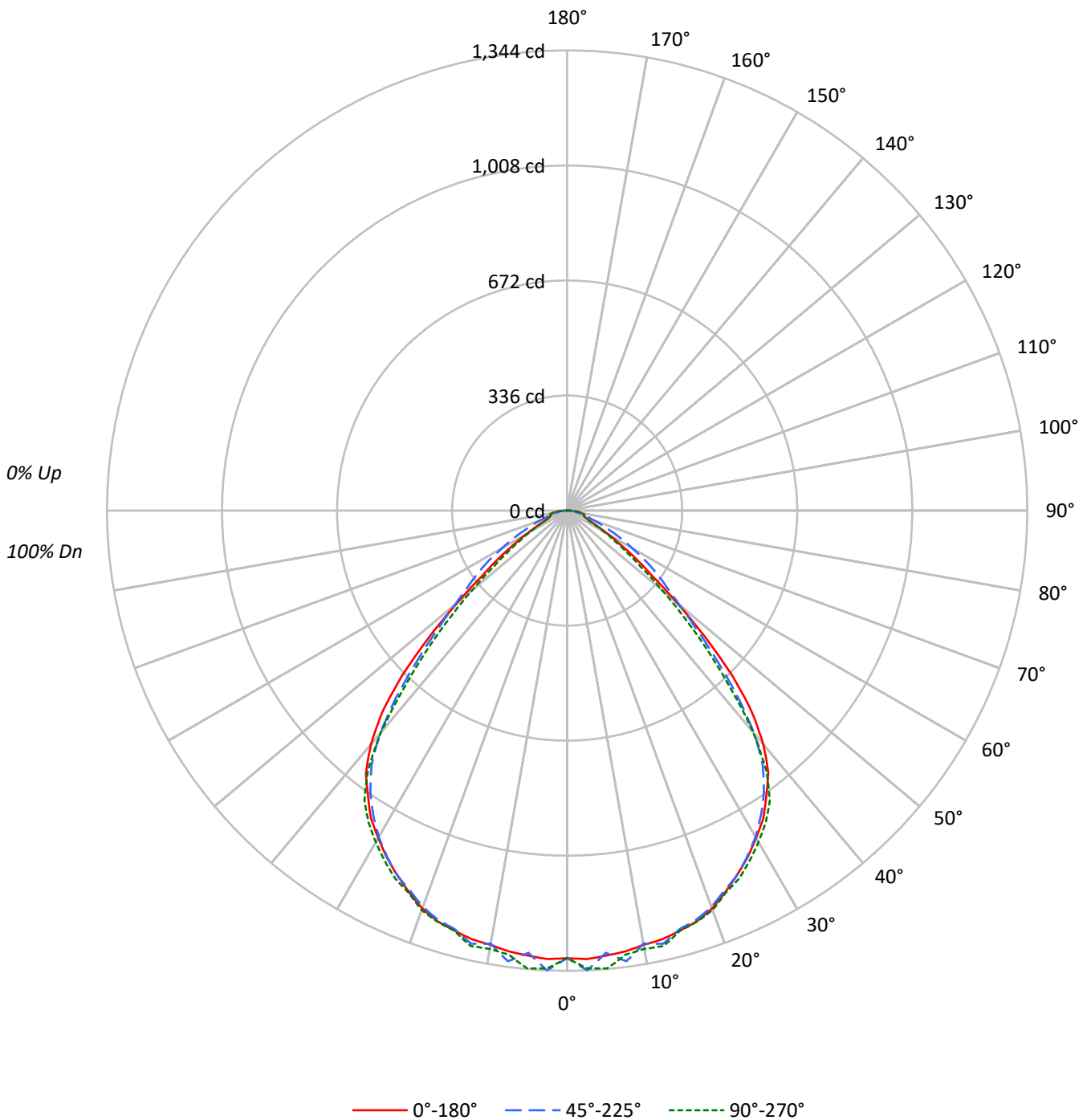
Input Watts (W): 23.499333
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P294048

CATALOG NUMBER: 24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P294048

CATALOG NUMBER: 24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-3000K

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	111	107	103	100	108	105	102	99	101	98	96		97	95	93		93	92	90	88
2	103	96	90	86	100	94	89	85	91	86	83		88	84	81		85	82	79	77
3	95	86	79	74	93	85	78	73	82	77	72		79	75	71		77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64		72	67	63		70	66	62	60
5	82	71	63	57	80	70	62	57	68	61	56		66	60	56		64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50		60	55	50		59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45		56	50	45		54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41		51	45	41		50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38		48	42	37		47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34		44	38	34		44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1758	1758	1758
5°	1762	1751	1813
10°	1759	1754	1776
15°	1770	1764	1771
20°	1771	1764	1778
25°	1744	1745	1762
30°	1715	1709	1737
35°	1666	1646	1696
40°	1565	1495	1487
45°	1297	1173	1113
50°	872	890	760
55°	575	747	499
60°	369	589	341
65°	238	450	231
70°	210	322	210
75°	271	256	273
80°	332	220	349
85°	386	327	406



TEST NUMBER: P294048

CATALOG NUMBER: 24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	4.7
10°-20°	359.3	13.6
20°-30°	540.9	20.5
30°-40°	627.0	23.7
40°-50°	489.8	18.5
50°-60°	261.5	9.9
60°-70°	134.5	5.1
70°-80°	76.1	2.9
80°-90°	28.9	1.1
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°	1025.3	38.8
0°-40°	1652.3	62.5
0°-60°	2403.6	90.9
0°-90°	2643.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2643.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1307	1307	1307	1307	1307	
5°	1305	1341	1296	1332	1342	124
15°	1270	1278	1266	1274	1271	359
25°	1174	1171	1175	1174	1187	541
35°	1014	1010	1002	1022	1032	632
45°	682	682	617	611	585	514
55°	245	310	318	287	213	226
65°	75	156	141	155	73	82
75°	52	98	49	92	53	53
85°	25	33	21	33	26	26
90°	0	0	0	0	0	



TEST NUMBER: P294048

CATALOG NUMBER: 24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1306.9	1306.9	1306.9	1306.9	1306.9
2.5°	1311.1	1334.9	1344.2	1332.8	1337.9
5°	1304.8	1341.3	1296.3	1331.9	1342.1
7.5°	1298.8	1295.0	1327.7	1293.7	1308.2
10°	1287.8	1290.3	1284.0	1308.2	1299.7
12.5°	1282.7	1297.5	1296.3	1284.0	1302.6
15°	1270.4	1278.4	1266.1	1274.2	1271.2
17.5°	1258.1	1254.3	1253.0	1256.4	1259.3
20°	1236.9	1224.1	1231.8	1232.6	1241.9
22.5°	1206.3	1198.7	1200.4	1208.0	1208.8
25°	1174.5	1170.6	1175.3	1173.6	1186.8
27.5°	1141.4	1136.3	1139.2	1145.6	1153.7
30°	1103.6	1102.3	1100.2	1105.7	1118.0
32.5°	1066.2	1056.0	1054.3	1065.8	1079.8
35°	1014.4	1009.8	1002.1	1022.1	1032.3
37.5°	965.2	950.8	938.5	950.3	954.6
40°	890.9	879.9	851.0	852.3	846.4
42.5°	799.7	791.6	736.4	726.7	710.1
45°	681.7	682.1	616.7	611.2	584.9
47.5°	544.6	568.8	511.9	505.5	466.5
50°	416.8	460.5	425.3	415.1	363.3
52.5°	312.8	376.9	365.9	343.8	272.5
55°	245.3	310.3	318.3	286.9	212.7
57.5°	184.6	255.5	268.7	242.8	164.3
60°	137.1	215.2	219.0	208.8	126.9
62.5°	101.9	182.9	177.8	179.1	94.2
65°	74.7	155.8	141.3	155.3	72.6
67.5°	61.1	135.0	109.9	134.6	59.0
70°	53.5	119.7	81.9	118.4	53.5
72.5°	51.8	109.9	64.9	105.3	52.2
75°	52.2	98.0	49.2	91.7	52.6
77.5°	48.0	80.6	37.4	78.1	50.1
80°	42.9	61.1	28.4	62.0	45.0
82.5°	36.5	44.6	22.9	45.8	37.8
85°	25.0	32.7	21.2	32.7	26.3
87.5°	11.9	19.5	13.2	18.7	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)