

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: P294100

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294100
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-L92765-W2A1-U-4000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3001.0 lumens
Efficiency: N/A
Efficacy: 129.1 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

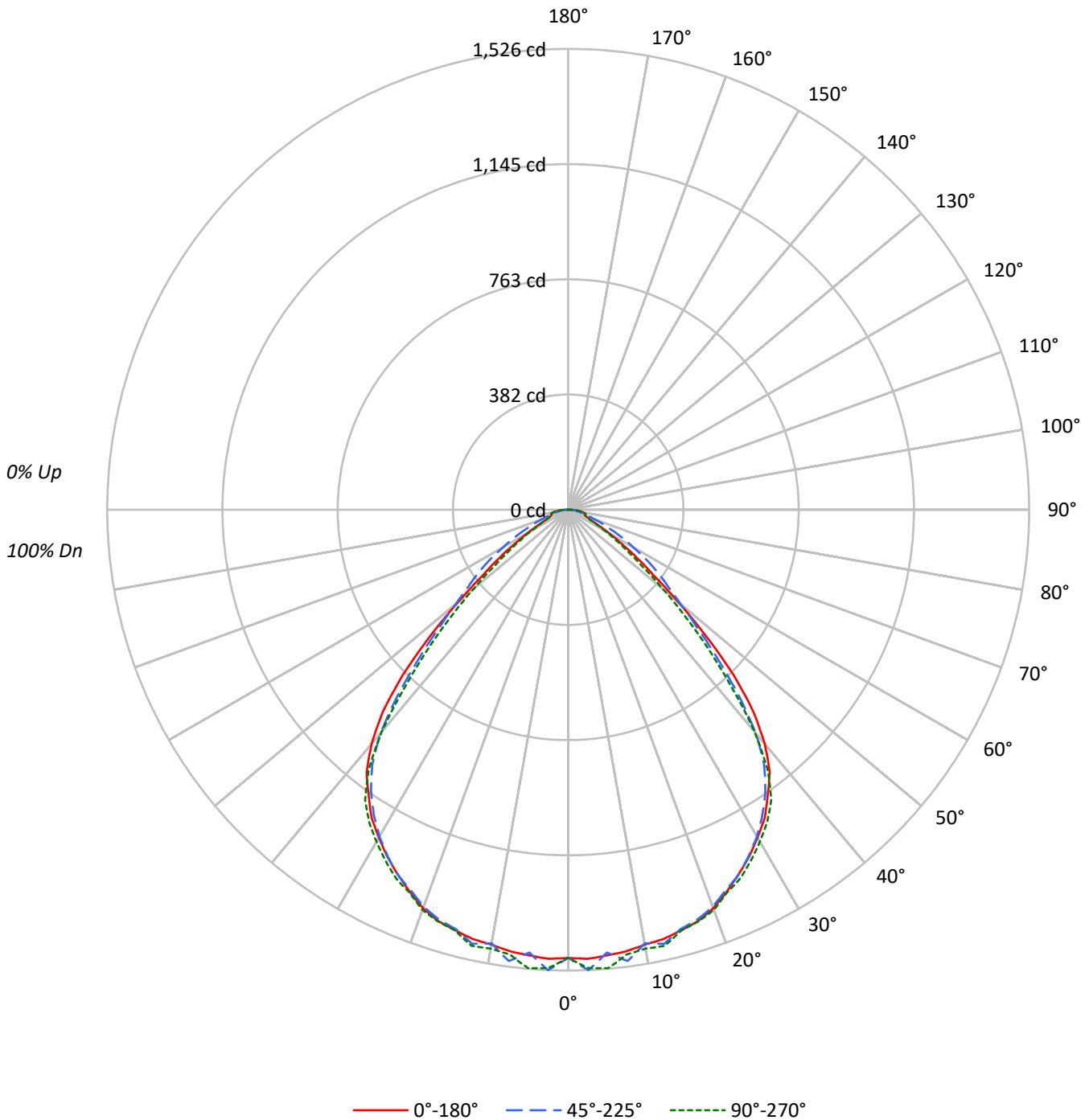
Input Watts (W): 23.25
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1997	1997	1997
5°	2001	1988	2058
10°	1998	1992	2016
15°	2009	2003	2011
20°	2011	2003	2019
25°	1980	1981	2000
30°	1947	1941	1972
35°	1892	1869	1925
40°	1777	1697	1688
45°	1473	1333	1264
50°	991	1011	863
55°	654	848	567
60°	419	669	388
65°	270	511	262
70°	239	366	239
75°	308	291	311
80°	377	250	396
85°	438	372	462



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.1	4.7
10°-20°	408.0	13.6
20°-30°	614.2	20.5
30°-40°	711.9	23.7
40°-50°	556.1	18.5
50°-60°	296.9	9.9
60°-70°	152.7	5.1
70°-80°	86.4	2.9
80°-90°	32.8	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°	1164.2	38.8
0°-40°	1876.1	62.5
0°-60°	2729.1	90.9
0°-90°	3001.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3001.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1484	1484	1484	1484	1484	
5°	1482	1523	1472	1512	1524	141
15°	1442	1452	1438	1447	1443	407
25°	1334	1329	1334	1333	1348	614
35°	1152	1146	1138	1160	1172	718
45°	774	774	700	694	664	583
55°	279	352	362	326	242	257
65°	85	177	160	176	82	93
75°	59	111	56	104	60	60
85°	28	37	24	37	30	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1488.7	1515.7	1526.3	1513.3	1519.1
5°	1481.5	1522.9	1471.9	1512.3	1523.9
7.5°	1474.8	1470.4	1507.5	1469.0	1485.4
10°	1462.2	1465.1	1457.9	1485.4	1475.7
12.5°	1456.4	1473.3	1471.9	1457.9	1479.1
15°	1442.5	1451.6	1437.6	1446.8	1443.4
17.5°	1428.5	1424.1	1422.7	1426.6	1429.9
20°	1404.4	1389.9	1398.6	1399.6	1410.2
22.5°	1369.7	1361.0	1362.9	1371.6	1372.6
25°	1333.5	1329.2	1334.5	1332.6	1347.5
27.5°	1295.9	1290.2	1293.5	1300.8	1309.9
30°	1253.1	1251.6	1249.2	1255.5	1269.4
32.5°	1210.6	1199.1	1197.2	1210.2	1226.1
35°	1151.8	1146.5	1137.9	1160.5	1172.1
37.5°	1095.9	1079.6	1065.6	1079.1	1083.9
40°	1011.6	999.1	966.3	967.7	961.0
42.5°	908.0	898.8	836.2	825.1	806.3
45°	774.0	774.5	700.3	694.0	664.1
47.5°	618.3	645.8	581.2	574.0	529.7
50°	473.3	522.9	482.9	471.3	412.5
52.5°	355.2	428.0	415.4	390.4	309.4
55°	278.6	352.3	361.5	325.8	241.5
57.5°	209.6	290.1	305.1	275.7	186.5
60°	155.7	244.3	248.7	237.1	144.1
62.5°	115.7	207.7	201.9	203.4	107.0
65°	84.8	176.9	160.5	176.4	82.4
67.5°	69.4	153.3	124.8	152.8	67.0
70°	60.7	135.9	93.0	134.5	60.7
72.5°	58.8	124.8	73.7	119.5	59.3
75°	59.3	111.3	55.9	104.1	59.8
77.5°	54.5	91.6	42.4	88.7	56.9
80°	48.7	69.4	32.3	70.4	51.1
82.5°	41.4	50.6	26.0	52.1	42.9
85°	28.4	37.1	24.1	37.1	29.9
87.5°	13.5	22.2	14.9	21.2	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)