

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: P294103

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294103
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-5500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3189.0 lumens
Efficiency: N/A
Efficacy: 135.0 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

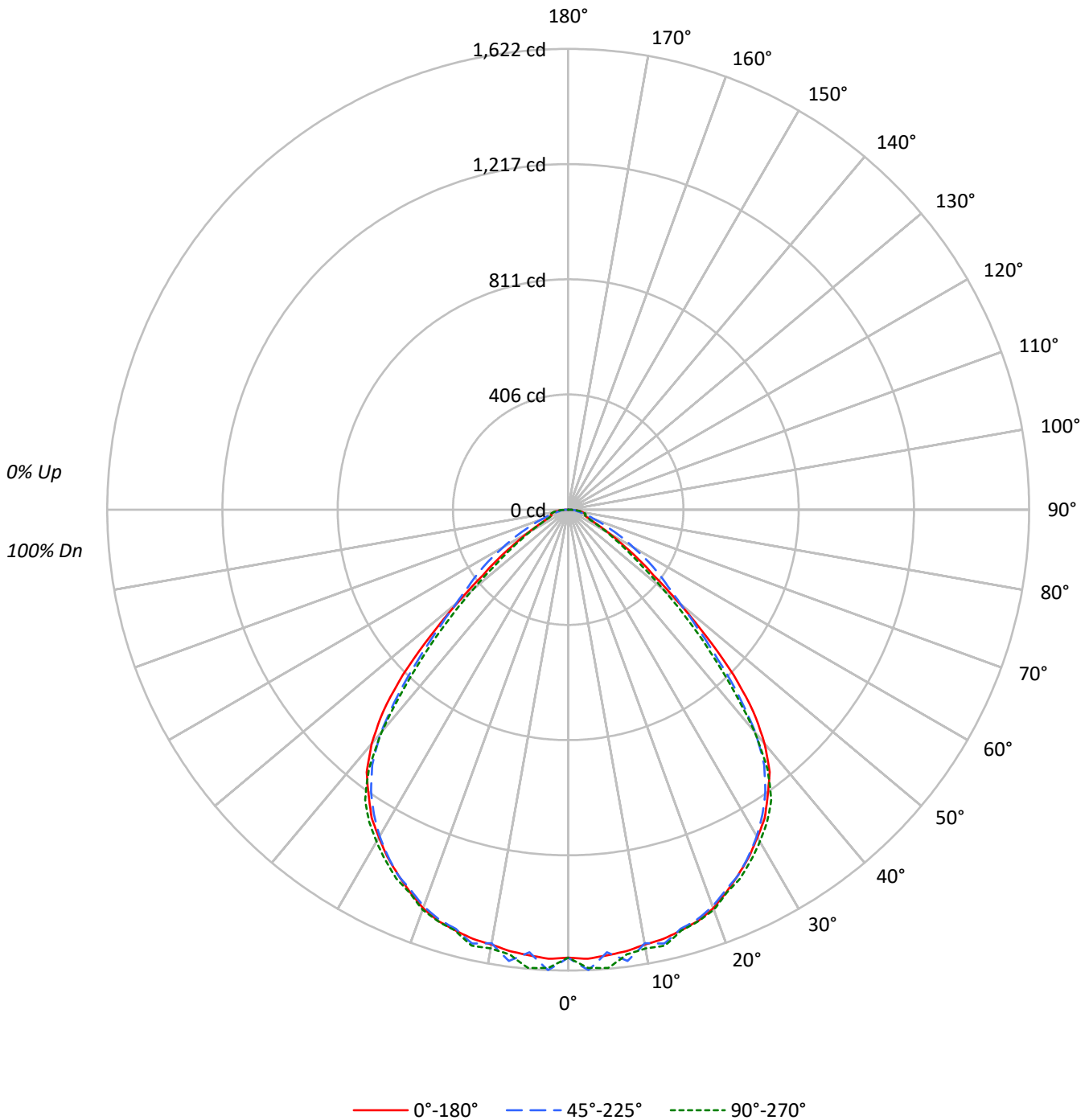
Input Watts (W): 23.622
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2122	2122	2122
5°	2126	2113	2187
10°	2123	2117	2143
15°	2135	2128	2137
20°	2137	2128	2146
25°	2104	2105	2126
30°	2069	2062	2096
35°	2010	1986	2046
40°	1888	1803	1794
45°	1565	1416	1343
50°	1053	1074	918
55°	694	901	602
60°	445	711	412
65°	287	543	279
70°	254	389	254
75°	328	309	330
80°	401	266	421
85°	466	395	491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.0	4.7
10°-20°	433.5	13.6
20°-30°	652.7	20.5
30°-40°	756.5	23.7
40°-50°	590.9	18.5
50°-60°	315.5	9.9
60°-70°	162.2	5.1
70°-80°	91.8	2.9
80°-90°	34.9	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°	1237.2	38.8
0°-40°	1993.6	62.5
0°-60°	2900.1	90.9
0°-90°	3189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3189.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1577	1577	1577	1577	1577	
5°	1574	1618	1564	1607	1619	150
15°	1533	1543	1528	1537	1534	433
25°	1417	1412	1418	1416	1432	653
35°	1224	1218	1209	1233	1246	763
45°	822	823	744	738	706	620
55°	296	374	384	346	257	273
65°	90	188	170	187	88	99
75°	63	118	59	111	64	64
85°	30	39	26	39	32	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1576.9	1576.9	1576.9	1576.9	1576.9
2.5°	1582.0	1610.7	1621.9	1608.1	1614.3
5°	1574.3	1618.4	1564.1	1607.1	1619.4
7.5°	1567.1	1562.5	1602.0	1561.0	1578.4
10°	1553.8	1556.9	1549.2	1578.4	1568.2
12.5°	1547.7	1565.6	1564.1	1549.2	1571.7
15°	1532.8	1542.6	1527.7	1537.4	1533.8
17.5°	1518.0	1513.4	1511.8	1515.9	1519.5
20°	1492.4	1477.0	1486.2	1487.2	1498.5
22.5°	1455.5	1446.3	1448.3	1457.5	1458.6
25°	1417.1	1412.5	1418.1	1416.1	1431.9
27.5°	1377.1	1371.0	1374.6	1382.3	1392.0
30°	1331.6	1330.0	1327.5	1334.1	1349.0
32.5°	1286.5	1274.2	1272.1	1286.0	1302.9
35°	1224.0	1218.4	1209.2	1233.2	1245.5
37.5°	1164.6	1147.2	1132.3	1146.7	1151.8
40°	1075.0	1061.7	1026.8	1028.4	1021.2
42.5°	964.9	955.1	888.6	876.8	856.8
45°	822.5	823.0	744.1	737.5	705.7
47.5°	657.1	686.3	617.6	610.0	562.8
50°	502.9	555.7	513.2	500.9	438.4
52.5°	377.4	454.8	441.5	414.8	328.8
55°	296.0	374.4	384.1	346.2	256.6
57.5°	222.8	308.3	324.2	292.9	198.2
60°	165.4	259.7	264.3	252.0	153.1
62.5°	122.9	220.7	214.6	216.1	113.7
65°	90.1	188.0	170.5	187.4	87.6
67.5°	73.7	162.9	132.6	162.3	71.2
70°	64.5	144.4	98.8	142.9	64.5
72.5°	62.5	132.6	78.4	127.0	63.0
75°	63.0	118.3	59.4	110.6	63.5
77.5°	57.9	97.3	45.1	94.2	60.4
80°	51.7	73.7	34.3	74.8	54.3
82.5°	44.0	53.8	27.7	55.3	45.6
85°	30.2	39.4	25.6	39.4	31.8
87.5°	14.3	23.6	15.9	22.5	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)