

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: P294056

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294056
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-LD5-38-A19/156-UNV-L93050-W2A1-U-4500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3498.0 lumens
Efficiency: N/A
Efficacy: 132.2 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

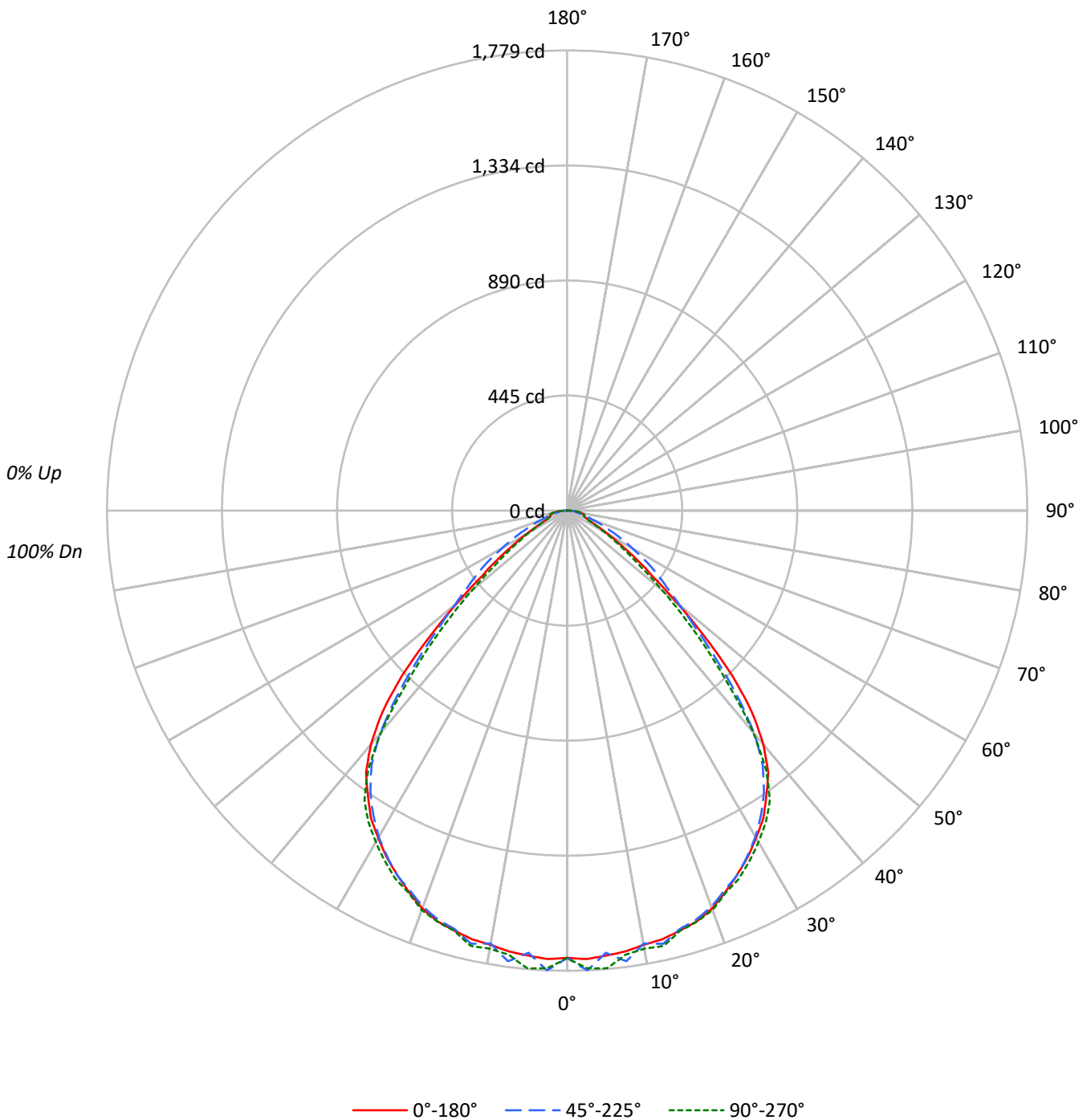
Input Watts (W): 26.455338
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2327	2327	2327
5°	2332	2317	2399
10°	2329	2322	2350
15°	2342	2334	2344
20°	2344	2334	2354
25°	2308	2309	2332
30°	2269	2262	2299
35°	2205	2178	2244
40°	2071	1978	1968
45°	1717	1553	1473
50°	1155	1178	1007
55°	762	988	660
60°	488	780	452
65°	315	596	306
70°	279	426	279
75°	359	339	362
80°	439	291	461
85°	511	434	537



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	4.7
10°-20°	475.5	13.6
20°-30°	715.9	20.5
30°-40°	829.8	23.7
40°-50°	648.2	18.5
50°-60°	346.1	9.9
60°-70°	178.0	5.1
70°-80°	100.7	2.9
80°-90°	38.2	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°	1357.0	38.8
0°-40°	2186.8	62.5
0°-60°	3181.1	90.9
0°-90°	3498.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3498.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1730	1730	1730	1730	1730	
5°	1727	1775	1716	1763	1776	164
15°	1681	1692	1676	1686	1682	475
25°	1554	1549	1556	1553	1571	716
35°	1343	1336	1326	1353	1366	837
45°	902	903	816	809	774	680
55°	325	411	421	380	281	300
65°	99	206	187	206	96	109
75°	69	130	65	121	70	70
85°	33	43	28	43	35	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1729.7	1729.7	1729.7	1729.7	1729.7
2.5°	1735.3	1766.7	1779.1	1763.9	1770.7
5°	1726.9	1775.2	1715.6	1762.8	1776.3
7.5°	1719.0	1713.9	1757.2	1712.2	1731.3
10°	1704.4	1707.8	1699.3	1731.3	1720.1
12.5°	1697.6	1717.3	1715.6	1699.3	1724.0
15°	1681.3	1692.0	1675.7	1686.4	1682.5
17.5°	1665.1	1660.0	1658.3	1662.8	1666.7
20°	1637.0	1620.1	1630.2	1631.4	1643.7
22.5°	1596.5	1586.4	1588.7	1598.8	1599.9
25°	1554.4	1549.3	1555.5	1553.3	1570.7
27.5°	1510.6	1503.8	1507.8	1516.2	1526.9
30°	1460.6	1458.9	1456.1	1463.4	1479.7
32.5°	1411.1	1397.7	1395.4	1410.6	1429.1
35°	1342.6	1336.4	1326.3	1352.7	1366.2
37.5°	1277.4	1258.3	1242.1	1257.8	1263.4
40°	1179.1	1164.5	1126.3	1128.0	1120.2
42.5°	1058.4	1047.7	974.7	961.7	939.8
45°	902.2	902.7	816.2	808.9	774.1
47.5°	720.7	752.8	677.5	669.1	617.4
50°	551.6	609.5	562.9	549.4	480.9
52.5°	414.0	498.8	484.2	455.0	360.7
55°	324.7	410.6	421.3	379.8	281.4
57.5°	244.4	338.2	355.6	321.3	217.4
60°	181.4	284.8	289.9	276.4	168.0
62.5°	134.8	242.1	235.4	237.1	124.7
65°	98.9	206.2	187.1	205.6	96.1
67.5°	80.9	178.6	145.5	178.1	78.1
70°	70.8	158.4	108.4	156.7	70.8
72.5°	68.5	145.5	85.9	139.3	69.1
75°	69.1	129.8	65.2	121.3	69.7
77.5°	63.5	106.7	49.4	103.4	66.3
80°	56.7	80.9	37.6	82.0	59.5
82.5°	48.3	59.0	30.3	60.7	50.0
85°	33.1	43.3	28.1	43.3	34.8
87.5°	15.7	25.8	17.4	24.7	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)