

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: P294110

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294110  
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-L92765-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: 3393.0 lumens  
Efficiency: N/A  
Efficacy: 131.2 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

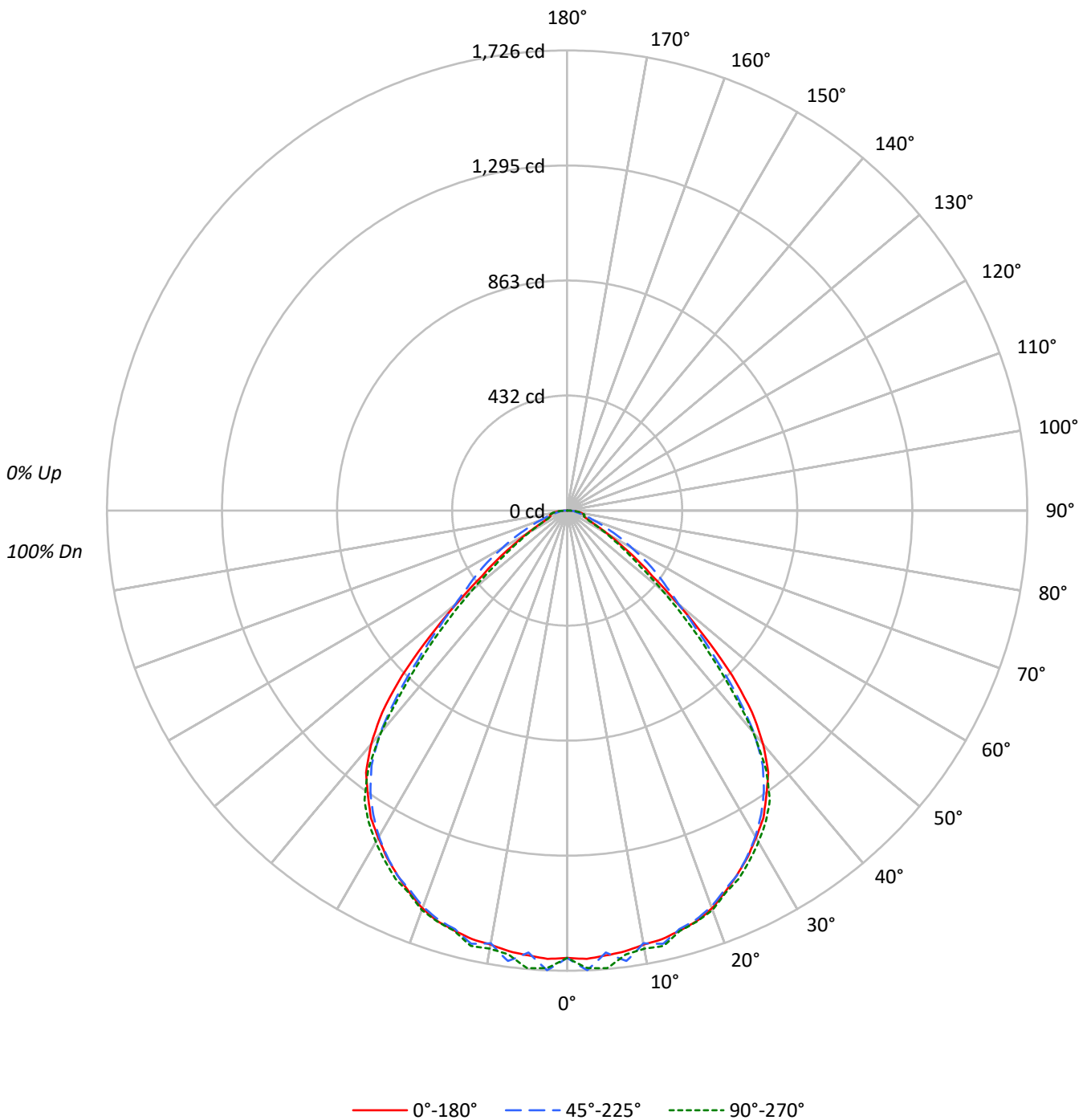
Input Watts (W): 25.854  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2257	2257	2257
5°	2262	2248	2327
10°	2259	2252	2280
15°	2272	2264	2273
20°	2273	2264	2283
25°	2238	2240	2262
30°	2201	2194	2230
35°	2139	2113	2177
40°	2009	1919	1908
45°	1665	1506	1429
50°	1120	1143	976
55°	739	959	640
60°	474	757	438
65°	305	578	297
70°	270	414	270
75°	348	329	351
80°	426	283	448
85°	496	420	522



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.6	4.7
10°-20°	461.3	13.6
20°-30°	694.4	20.5
30°-40°	804.9	23.7
40°-50°	628.7	18.5
50°-60°	335.7	9.9
60°-70°	172.6	5.1
70°-80°	97.7	2.9
80°-90°	37.1	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°	1316.3	38.8
0°-40°	2121.2	62.5
0°-60°	3085.6	90.9
0°-90°	3393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3393.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1678	1678	1678	1678	1678	
5°	1675	1722	1664	1710	1723	159
15°	1631	1641	1625	1636	1632	461
25°	1508	1503	1509	1507	1524	695
35°	1302	1296	1286	1312	1325	812
45°	875	876	792	785	751	659
55°	315	398	409	368	273	291
65°	96	200	182	199	93	105
75°	67	126	63	118	68	68
85°	32	42	27	42	34	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1677.7	1677.7	1677.7	1677.7	1677.7
2.5°	1683.2	1713.7	1725.7	1711.0	1717.5
5°	1675.0	1721.9	1664.1	1709.9	1723.0
7.5°	1667.4	1662.5	1704.4	1660.8	1679.4
10°	1653.2	1656.5	1648.3	1679.4	1668.5
12.5°	1646.7	1665.8	1664.1	1648.3	1672.3
15°	1630.9	1641.2	1625.4	1635.8	1632.0
17.5°	1615.1	1610.2	1608.5	1612.9	1616.7
20°	1587.8	1571.5	1581.3	1582.4	1594.4
22.5°	1548.6	1538.8	1541.0	1550.8	1551.9
25°	1507.7	1502.8	1508.8	1506.6	1523.5
27.5°	1465.2	1458.7	1462.5	1470.7	1481.0
30°	1416.7	1415.1	1412.4	1419.5	1435.3
32.5°	1368.8	1355.7	1353.5	1368.2	1386.2
35°	1302.3	1296.3	1286.5	1312.1	1325.2
37.5°	1239.1	1220.6	1204.8	1220.0	1225.5
40°	1143.7	1129.6	1092.5	1094.2	1086.5
42.5°	1026.6	1016.2	945.4	932.9	911.6
45°	875.1	875.7	791.7	784.7	750.9
47.5°	699.1	730.2	657.1	649.0	598.8
50°	535.1	591.2	546.0	532.9	466.4
52.5°	401.6	483.9	469.7	441.4	349.8
55°	315.0	398.3	408.7	368.4	273.0
57.5°	237.0	328.0	344.9	311.7	210.9
60°	176.0	276.3	281.2	268.1	162.9
62.5°	130.8	234.9	228.3	229.9	121.0
65°	95.9	200.0	181.5	199.4	93.2
67.5°	78.5	173.3	141.1	172.7	75.7
70°	68.7	153.7	105.2	152.0	68.7
72.5°	66.5	141.1	83.4	135.1	67.0
75°	67.0	125.9	63.2	117.7	67.6
77.5°	61.6	103.5	48.0	100.3	64.3
80°	55.0	78.5	36.5	79.6	57.8
82.5°	46.9	57.2	29.4	58.8	48.5
85°	32.1	42.0	27.2	42.0	33.8
87.5°	15.3	25.1	16.9	24.0	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)