

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: P294321

Luminaire Tested: **24GR-LD5-56-FGW080-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294321  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-25)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-56-FGW080-UNV-L93050-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4177.0 lumens  
Efficiency: N/A  
Efficacy: 105.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

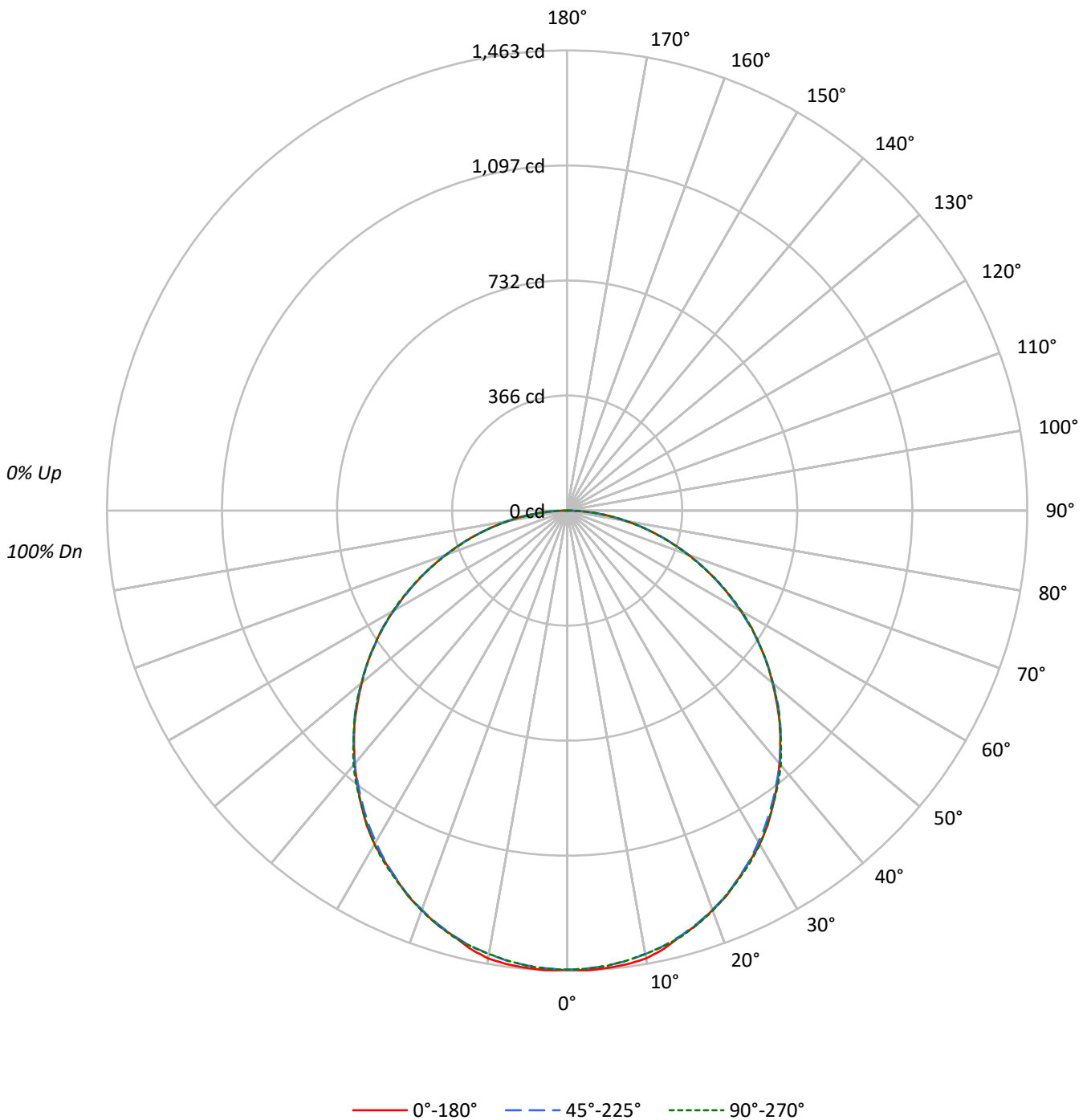
Input Watts (W): 39.707373  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	94	97	94	91		93	90	88		89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62		71	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35		47	40	35		46	40	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1964	1964	1964
5°	1972	1961	1962
10°	1976	1956	1956
15°	1950	1948	1953
20°	1935	1934	1938
25°	1914	1913	1919
30°	1902	1890	1904
35°	1875	1866	1875
40°	1844	1846	1857
45°	1818	1824	1820
50°	1784	1790	1786
55°	1756	1752	1756
60°	1715	1710	1726
65°	1662	1669	1675
70°	1608	1616	1604
75°	1552	1552	1552
80°	1465	1465	1481
85°	1354	1369	1323



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.0	3.3
10°-20°	394.6	9.4
20°-30°	594.7	14.2
30°-40°	712.3	17.1
40°-50°	737.3	17.7
50°-60°	668.5	16.0
60°-70°	518.3	12.4
70°-80°	315.2	7.5
80°-90°	98.1	2.3
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°	1127.4	27.0
0°-40°	1839.6	44.0
0°-60°	3245.4	77.7
0°-90°	4177.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4177.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1460	1460	1460	1460	1460	
5°	1460	1451	1452	1450	1453	139
15°	1400	1401	1399	1394	1402	396
25°	1290	1290	1288	1292	1292	595
35°	1142	1134	1136	1141	1142	714
45°	956	958	958	955	956	736
55°	749	745	747	750	749	669
65°	522	525	524	522	526	518
75°	298	298	298	298	298	315
85°	88	87	89	88	86	98
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1459.9	1459.9	1459.9	1459.9	1459.9
2.5°	1462.9	1457.0	1457.0	1455.0	1457.9
5°	1459.9	1451.0	1452.0	1450.1	1453.0
7.5°	1455.0	1443.2	1444.1	1442.2	1443.2
10°	1446.1	1432.3	1431.3	1430.4	1431.3
12.5°	1426.4	1418.5	1417.6	1415.6	1418.5
15°	1399.8	1400.8	1398.8	1393.9	1401.8
17.5°	1379.1	1378.1	1376.2	1371.3	1379.1
20°	1351.5	1352.5	1350.6	1348.6	1353.5
22.5°	1325.0	1322.0	1323.0	1322.0	1323.0
25°	1289.5	1289.5	1288.5	1292.4	1292.4
27.5°	1257.0	1253.0	1255.0	1259.0	1260.9
30°	1224.5	1214.6	1216.6	1220.5	1225.5
32.5°	1186.1	1176.2	1178.2	1182.1	1184.1
35°	1141.7	1133.8	1135.8	1140.7	1141.7
37.5°	1096.4	1091.5	1093.5	1097.4	1100.4
40°	1050.1	1048.1	1051.1	1050.1	1057.0
42.5°	1002.8	1001.8	1004.8	1004.8	1005.8
45°	955.5	957.5	958.5	954.6	956.5
47.5°	903.3	904.3	908.3	906.3	907.3
50°	852.1	851.1	855.1	856.0	853.1
52.5°	802.9	797.9	801.9	803.8	801.9
55°	748.7	744.7	746.7	749.7	748.7
57.5°	695.5	691.5	692.5	697.4	695.5
60°	637.4	636.4	635.4	639.3	641.3
62.5°	580.2	579.2	577.3	581.2	583.2
65°	522.1	525.1	524.1	522.1	526.0
67.5°	466.9	469.9	466.9	465.0	465.0
70°	408.8	411.8	410.8	408.8	407.8
72.5°	354.6	354.6	352.7	351.7	352.7
75°	298.5	297.5	298.5	297.5	298.5
77.5°	243.3	244.3	244.3	244.3	243.3
80°	189.1	189.1	189.1	190.1	191.1
82.5°	138.9	135.9	138.9	136.9	137.9
85°	87.7	86.7	88.7	87.7	85.7
87.5°	39.4	40.4	40.4	41.4	41.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)