

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: P292642

Luminaire Tested: **22GR-LD5-40-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292642  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-40-A19/156-UNV-L93050-W2A1-U-4000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3687.0 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

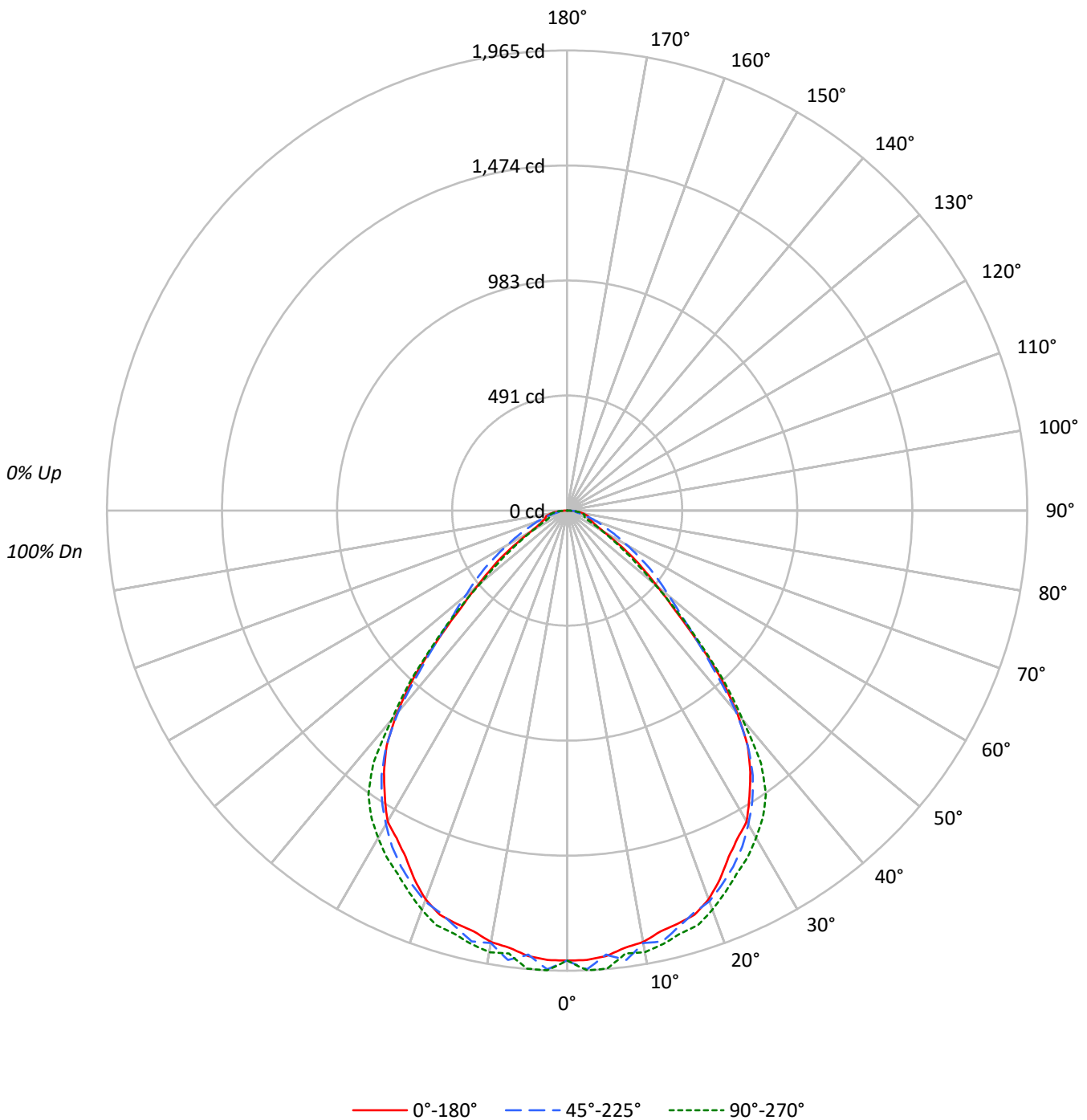
Input Watts (W): 33.201  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	91	90	88					88			
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33					33			

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

	0°	45°	90°
0°	5171	5171	5171
5°	5158	5141	5303
10°	5111	5125	5232
15°	5087	5126	5208
20°	5060	5085	5194
25°	4844	4981	5084
30°	4764	4808	5013
35°	4481	4537	4860
40°	3970	3943	4098
45°	2965	2972	3055
50°	2087	2375	2022
55°	1541	2005	1382
60°	963	1585	903
65°	786	1256	630
70°	779	1046	622
75°	967	767	804
80°	1077	606	982
85°	1071	1127	1099



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	182.9	5.0
10°-20°	521.0	14.1
20°-30°	771.7	20.9
30°-40°	864.4	23.4
40°-50°	635.1	17.2
50°-60°	355.0	9.6
60°-70°	197.9	5.4
70°-80°	116.3	3.2
80°-90°	42.7	1.2
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°	1475.6	40.0
0°-40°	2340.0	63.5
0°-60°	3330.2	90.3
0°-90°	3687.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3687.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1922	1922	1922	1922	1922	
5°	1909	1945	1903	1942	1963	181
15°	1826	1837	1840	1868	1869	516
25°	1631	1644	1678	1701	1712	756
35°	1364	1365	1381	1444	1479	845
45°	779	843	781	837	803	609
55°	328	400	427	426	294	293
65°	123	219	197	253	99	128
75°	93	131	74	148	77	93
85°	35	51	36	47	36	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1921.6	1921.6	1921.6	1921.6	1921.6
2.5°	1920.7	1938.1	1960.7	1963.3	1965.0
5°	1909.4	1945.0	1903.3	1942.4	1963.3
7.5°	1883.3	1905.1	1935.5	1896.4	1907.7
10°	1870.3	1875.5	1875.5	1924.2	1914.6
12.5°	1840.8	1875.5	1884.2	1874.7	1895.5
15°	1826.0	1837.3	1839.9	1867.7	1869.4
17.5°	1809.5	1806.9	1800.8	1820.8	1856.4
20°	1766.9	1757.4	1775.6	1799.9	1813.8
22.5°	1704.4	1707.0	1728.7	1748.7	1764.3
25°	1631.4	1644.4	1677.5	1700.9	1712.2
27.5°	1576.7	1595.8	1618.4	1646.2	1668.8
30°	1533.3	1531.5	1547.2	1587.1	1613.2
32.5°	1449.0	1455.1	1471.6	1519.4	1555.8
35°	1363.9	1364.7	1381.2	1443.8	1479.4
37.5°	1265.7	1258.7	1268.3	1336.1	1359.5
40°	1130.2	1131.9	1122.4	1170.1	1166.7
42.5°	972.1	986.0	936.5	999.0	994.7
45°	779.2	842.6	781.0	836.6	802.7
47.5°	615.0	708.9	657.6	698.4	635.0
50°	498.6	595.1	567.3	585.5	483.0
52.5°	409.2	487.3	496.0	500.4	377.0
55°	328.4	399.6	427.4	426.5	294.5
57.5°	242.4	324.9	357.0	370.1	223.3
60°	179.0	270.2	294.5	323.2	167.7
62.5°	144.2	237.2	243.2	283.2	127.7
65°	123.4	218.9	197.2	252.8	99.0
67.5°	109.5	204.1	160.7	225.9	84.3
70°	99.0	181.6	132.9	202.4	79.1
72.5°	96.4	154.6	102.5	180.7	78.2
75°	93.0	131.2	73.8	148.5	77.3
77.5°	79.9	112.1	53.0	114.7	72.1
80°	69.5	89.5	39.1	86.0	63.4
82.5°	53.9	67.8	34.7	65.2	51.3
85°	34.7	51.3	36.5	46.9	35.6
87.5°	16.5	28.7	26.1	25.2	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)