

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: P294058

Luminaire Tested: **24GR-LD5-42-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294058
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-LD5-42-A19/156-UNV-L93050-W2A1-U-3000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3174.0 lumens
Efficiency: N/A
Efficacy: 110.8 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

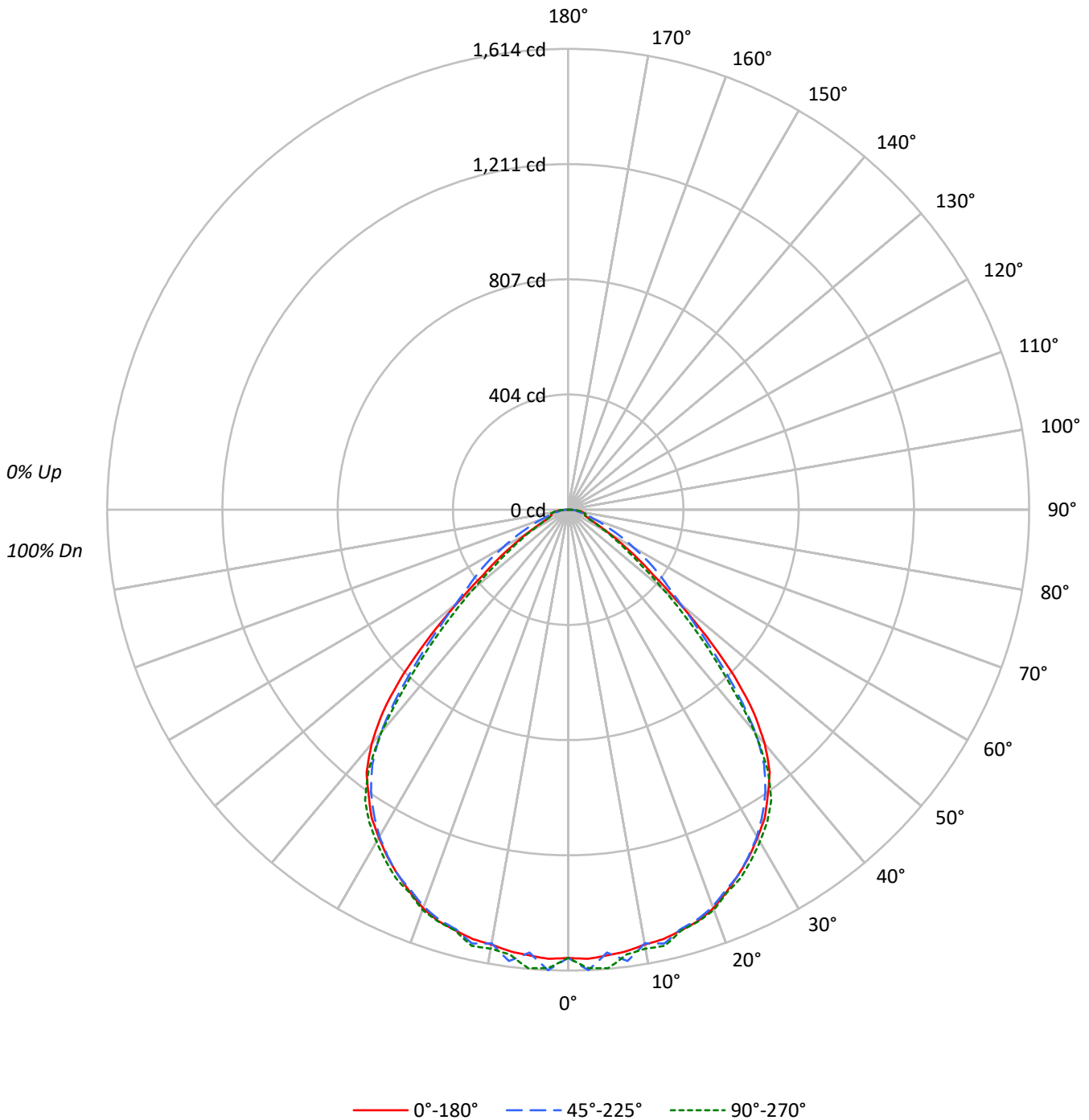
Input Watts (W): 28.636839
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2112	2112	2112
5°	2116	2103	2177
10°	2113	2107	2132
15°	2125	2118	2126
20°	2127	2118	2136
25°	2094	2095	2116
30°	2059	2053	2086
35°	2001	1977	2036
40°	1879	1795	1785
45°	1558	1409	1337
50°	1048	1069	913
55°	691	897	599
60°	443	708	410
65°	286	540	278
70°	253	387	253
75°	326	307	329
80°	399	265	418
85°	465	394	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.3	4.7
10°-20°	431.5	13.6
20°-30°	649.6	20.5
30°-40°	752.9	23.7
40°-50°	588.1	18.5
50°-60°	314.1	9.9
60°-70°	161.5	5.1
70°-80°	91.3	2.9
80°-90°	34.7	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°	1231.3	38.8
0°-40°	1984.2	62.5
0°-60°	2886.4	90.9
0°-90°	3174.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3174.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1570	1570	1570	1570	1570	
5°	1567	1611	1557	1600	1612	149
15°	1526	1535	1520	1530	1527	431
25°	1410	1406	1411	1409	1425	650
35°	1218	1213	1204	1227	1240	759
45°	819	819	741	734	702	617
55°	295	373	382	345	255	272
65°	90	187	170	187	87	99
75°	63	118	59	110	63	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°	1569.5	1569.5	1569.5	1569.5	1569.5
2.5°	1574.5	1603.1	1614.3	1600.5	1606.7
5°	1566.9	1610.7	1556.7	1599.5	1611.8
7.5°	1559.8	1555.2	1594.4	1553.7	1571.0
10°	1546.5	1549.6	1541.9	1571.0	1560.8
12.5°	1540.4	1558.2	1556.7	1541.9	1564.4
15°	1525.6	1535.3	1520.5	1530.2	1526.6
17.5°	1510.8	1506.2	1504.7	1508.8	1512.4
20°	1485.3	1470.1	1479.2	1480.2	1491.5
22.5°	1448.6	1439.5	1441.5	1450.7	1451.7
25°	1410.4	1405.8	1411.4	1409.4	1425.2
27.5°	1370.7	1364.5	1368.1	1375.8	1385.4
30°	1325.3	1323.8	1321.2	1327.8	1342.6
32.5°	1280.4	1268.2	1266.2	1279.9	1296.7
35°	1218.2	1212.6	1203.5	1227.4	1239.7
37.5°	1159.1	1141.8	1127.0	1141.3	1146.4
40°	1069.9	1056.7	1022.0	1023.5	1016.4
42.5°	960.3	950.6	884.4	872.7	852.8
45°	818.6	819.1	740.6	734.0	702.4
47.5°	654.0	683.0	614.7	607.1	560.2
50°	500.6	553.1	510.7	498.5	436.3
52.5°	375.7	452.6	439.4	412.9	327.2
55°	294.6	372.6	382.3	344.6	255.4
57.5°	221.7	306.9	322.7	291.6	197.3
60°	164.6	258.4	263.0	250.8	152.4
62.5°	122.3	219.7	213.6	215.1	113.2
65°	89.7	187.1	169.7	186.6	87.2
67.5°	73.4	162.1	132.0	161.6	70.9
70°	64.2	143.7	98.4	142.2	64.2
72.5°	62.2	132.0	78.0	126.4	62.7
75°	62.7	117.7	59.1	110.1	63.2
77.5°	57.6	96.8	44.9	93.8	60.1
80°	51.5	73.4	34.2	74.4	54.0
82.5°	43.8	53.5	27.5	55.1	45.4
85°	30.1	39.2	25.5	39.2	31.6
87.5°	14.3	23.4	15.8	22.4	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)