

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: P294059

Luminaire Tested: **24GR-LD5-42-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294059
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-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3468.0 lumens
Efficiency: N/A
Efficacy: 121.6 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

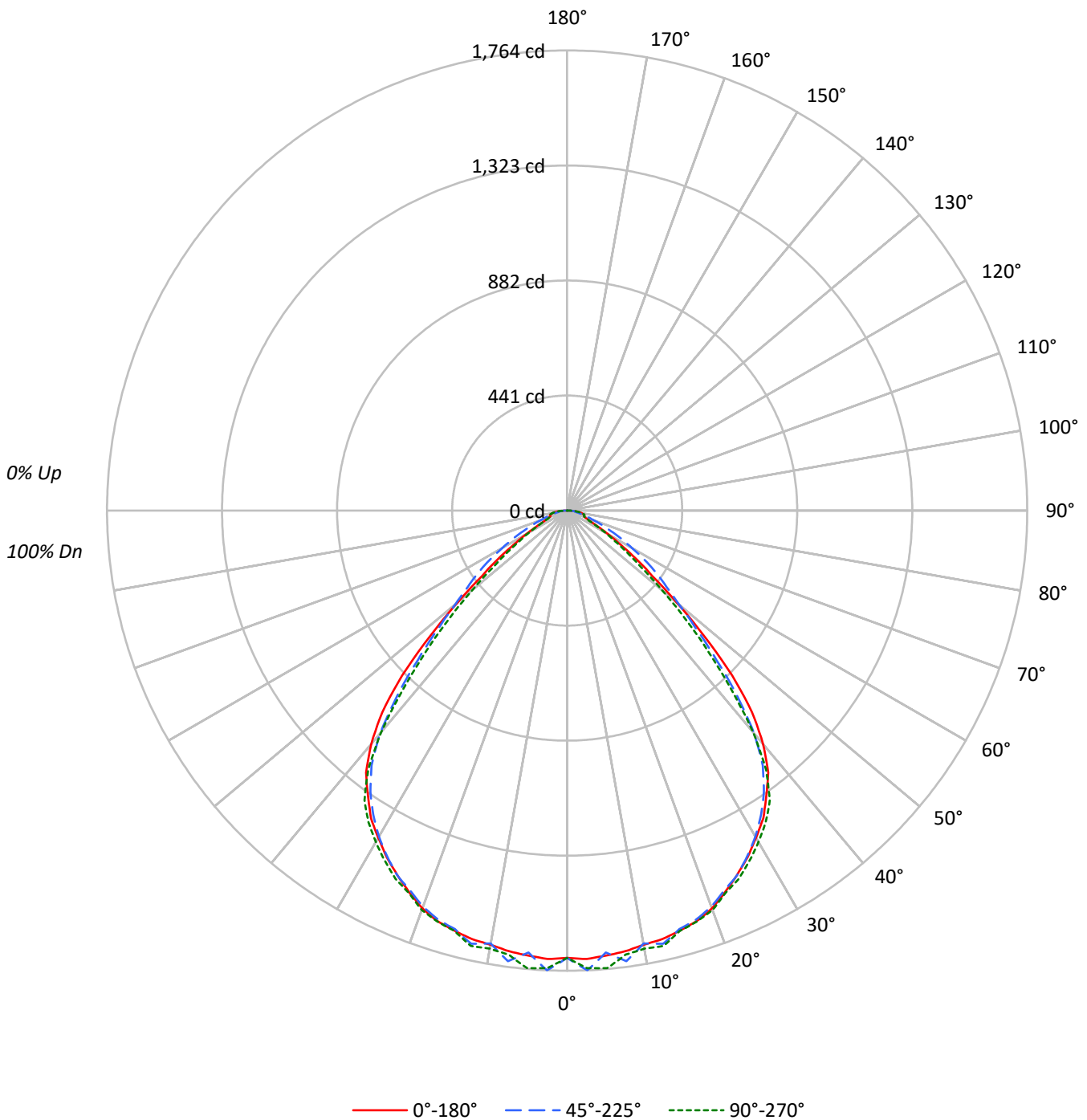
Input Watts (W): 28.524867
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2307	2307	2307
5°	2312	2297	2379
10°	2309	2302	2330
15°	2322	2314	2323
20°	2324	2314	2333
25°	2288	2290	2312
30°	2250	2243	2279
35°	2186	2160	2225
40°	2053	1961	1950
45°	1702	1540	1460
50°	1145	1168	998
55°	755	980	654
60°	484	773	448
65°	312	591	303
70°	276	423	276
75°	356	336	359
80°	436	289	457
85°	508	429	533



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.2	4.7
10°-20°	471.4	13.6
20°-30°	709.8	20.5
30°-40°	822.7	23.7
40°-50°	642.6	18.5
50°-60°	343.1	9.9
60°-70°	176.5	5.1
70°-80°	99.8	2.9
80°-90°	37.9	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°	1345.4	38.8
0°-40°	2168.0	62.5
0°-60°	3153.8	90.9
0°-90°	3468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3468.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1715	1715	1715	1715	1715	
5°	1712	1760	1701	1748	1761	163
15°	1667	1678	1661	1672	1668	471
25°	1541	1536	1542	1540	1557	710
35°	1331	1325	1315	1341	1354	830
45°	894	895	809	802	768	674
55°	322	407	418	376	279	297
65°	98	204	186	204	95	108
75°	68	129	65	120	69	69
85°	33	43	28	43	34	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1714.8	1714.8	1714.8	1714.8	1714.8
2.5°	1720.4	1751.6	1763.8	1748.8	1755.5
5°	1712.0	1759.9	1700.9	1747.7	1761.1
7.5°	1704.2	1699.2	1742.1	1697.6	1716.5
10°	1689.8	1693.1	1684.8	1716.5	1705.4
12.5°	1683.1	1702.6	1700.9	1684.8	1709.3
15°	1666.9	1677.5	1661.4	1671.9	1668.0
17.5°	1650.8	1645.8	1644.1	1648.6	1652.4
20°	1622.9	1606.2	1616.2	1617.4	1629.6
22.5°	1582.8	1572.8	1575.0	1585.1	1586.2
25°	1541.1	1536.0	1542.2	1539.9	1557.2
27.5°	1497.6	1490.9	1494.8	1503.2	1513.8
30°	1448.1	1446.4	1443.6	1450.8	1467.0
32.5°	1399.0	1385.7	1383.4	1398.5	1416.9
35°	1331.1	1325.0	1314.9	1341.1	1354.5
37.5°	1266.5	1247.6	1231.4	1247.0	1252.6
40°	1169.0	1154.5	1116.7	1118.3	1110.5
42.5°	1049.3	1038.7	966.3	953.5	931.8
45°	894.4	895.0	809.2	802.0	767.5
47.5°	714.6	746.3	671.7	663.3	612.1
50°	546.9	604.3	558.1	544.7	476.7
52.5°	410.5	494.6	480.1	451.1	357.6
55°	321.9	407.1	417.7	376.5	279.0
57.5°	242.3	335.3	352.5	318.6	215.5
60°	179.9	282.4	287.4	274.0	166.5
62.5°	133.7	240.0	233.4	235.0	123.6
65°	98.0	204.4	185.5	203.8	95.2
67.5°	80.2	177.1	144.2	176.6	77.4
70°	70.2	157.1	107.5	155.4	70.2
72.5°	67.9	144.2	85.2	138.1	68.5
75°	68.5	128.7	64.6	120.3	69.1
77.5°	62.9	105.8	49.0	102.5	65.7
80°	56.3	80.2	37.3	81.3	59.0
82.5°	47.9	58.5	30.1	60.1	49.6
85°	32.9	42.9	27.8	42.9	34.5
87.5°	15.6	25.6	17.3	24.5	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)