

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: P292528

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292528
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-LD5-28-A19/156-UNV-L83050-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2873.0 lumens
Efficiency: N/A
Efficacy: 130.3 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

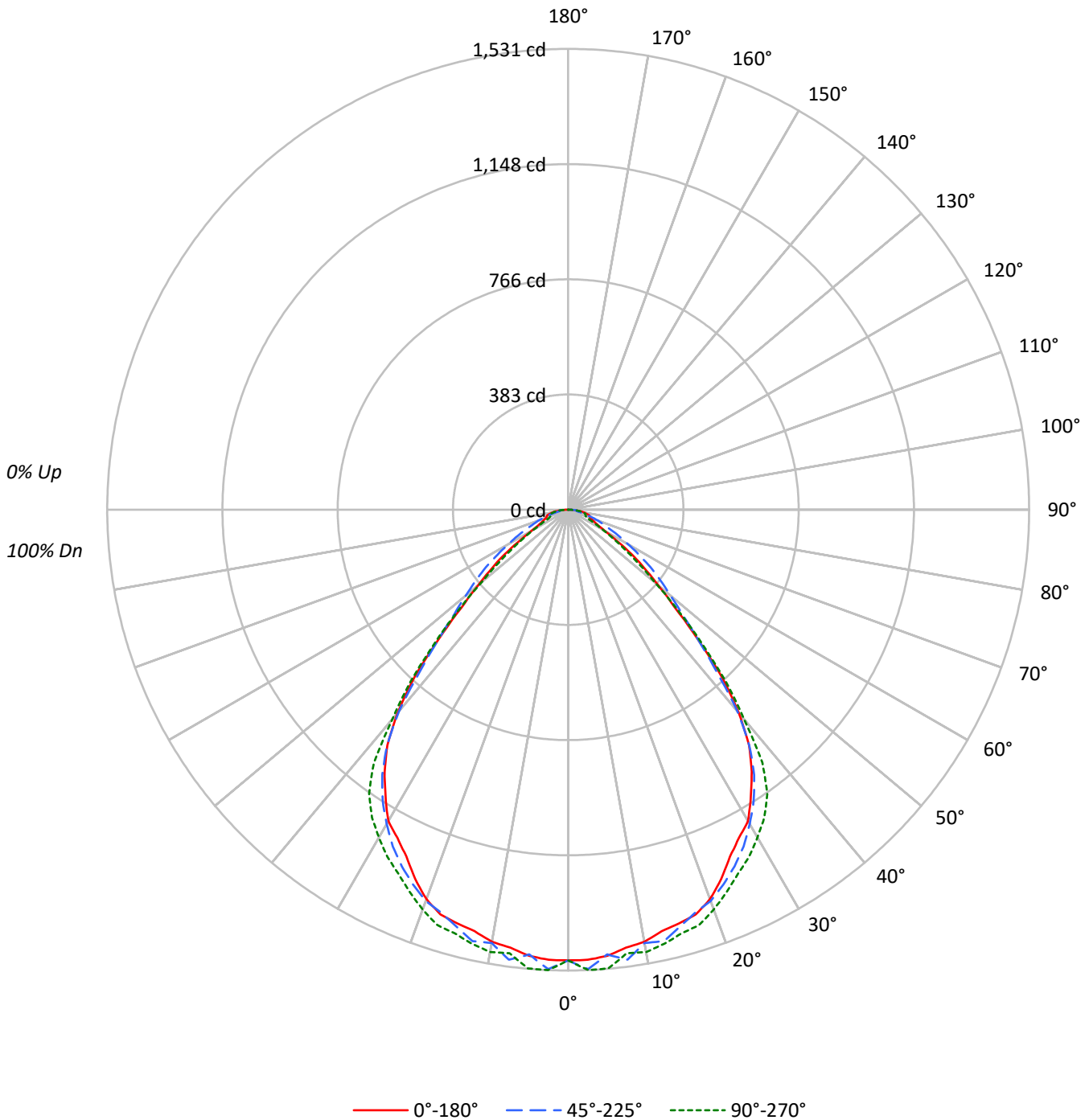
Input Watts (W): 22.041
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4029	4029	4029
5°	4019	4006	4132
10°	3982	3994	4077
15°	3964	3994	4058
20°	3943	3962	4048
25°	3774	3881	3961
30°	3712	3746	3906
35°	3491	3536	3787
40°	3094	3072	3194
45°	2311	2316	2380
50°	1626	1850	1576
55°	1201	1562	1077
60°	750	1235	703
65°	612	979	492
70°	607	815	485
75°	753	598	626
80°	840	473	766
85°	837	877	858



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.5	5.0
10°-20°	406.0	14.1
20°-30°	601.3	20.9
30°-40°	673.5	23.4
40°-50°	494.9	17.2
50°-60°	276.6	9.6
60°-70°	154.2	5.4
70°-80°	90.6	3.2
80°-90°	33.3	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°	1149.8	40.0
0°-40°	1823.4	63.5
0°-60°	2594.9	90.3
0°-90°	2873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1497	1497	1497	1497	1497	
5°	1488	1516	1483	1514	1530	141
15°	1423	1432	1434	1455	1457	402
25°	1271	1281	1307	1325	1334	589
35°	1063	1063	1076	1125	1153	658
45°	607	657	608	652	626	474
55°	256	311	333	332	230	228
65°	96	171	154	197	77	99
75°	72	102	58	116	60	73
85°	27	40	28	37	28	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1497.3	1497.3	1497.3	1497.3	1497.3
2.5°	1496.7	1510.2	1527.8	1529.8	1531.2
5°	1487.9	1515.6	1483.1	1513.6	1529.8
7.5°	1467.5	1484.5	1508.2	1477.7	1486.5
10°	1457.4	1461.5	1461.5	1499.4	1491.9
12.5°	1434.4	1461.5	1468.2	1460.8	1477.0
15°	1422.9	1431.7	1433.7	1455.4	1456.7
17.5°	1410.0	1408.0	1403.2	1418.8	1446.6
20°	1376.8	1369.4	1383.6	1402.6	1413.4
22.5°	1328.1	1330.1	1347.1	1362.6	1374.8
25°	1271.2	1281.4	1307.1	1325.4	1334.2
27.5°	1228.6	1243.5	1261.1	1282.7	1300.3
30°	1194.7	1193.4	1205.6	1236.7	1257.0
32.5°	1129.1	1133.8	1146.7	1183.9	1212.3
35°	1062.8	1063.4	1076.3	1125.0	1152.8
37.5°	986.3	980.8	988.3	1041.1	1059.4
40°	880.7	882.0	874.6	911.8	909.1
42.5°	757.5	768.3	729.7	778.4	775.1
45°	607.2	656.6	608.5	651.9	625.5
47.5°	479.3	552.4	512.4	544.2	494.8
50°	388.5	463.7	442.0	456.2	376.4
52.5°	318.8	379.7	386.5	389.9	293.8
55°	255.9	311.4	333.0	332.4	229.5
57.5°	188.9	253.2	278.2	288.4	174.0
60°	139.4	210.5	229.5	251.8	130.6
62.5°	112.4	184.8	189.5	220.7	99.5
65°	96.1	170.6	153.7	197.0	77.2
67.5°	85.3	159.1	125.2	176.0	65.7
70°	77.2	141.5	103.6	157.7	61.6
72.5°	75.1	120.5	79.9	140.8	60.9
75°	72.4	102.2	57.5	115.8	60.2
77.5°	62.3	87.3	41.3	89.4	56.2
80°	54.2	69.7	30.5	67.0	49.4
82.5°	42.0	52.8	27.1	50.8	39.9
85°	27.1	39.9	28.4	36.6	27.8
87.5°	12.9	22.3	20.3	19.6	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)