

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: P292529

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292529
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-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3017.0 lumens
Efficiency: N/A
Efficacy: 134.1 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

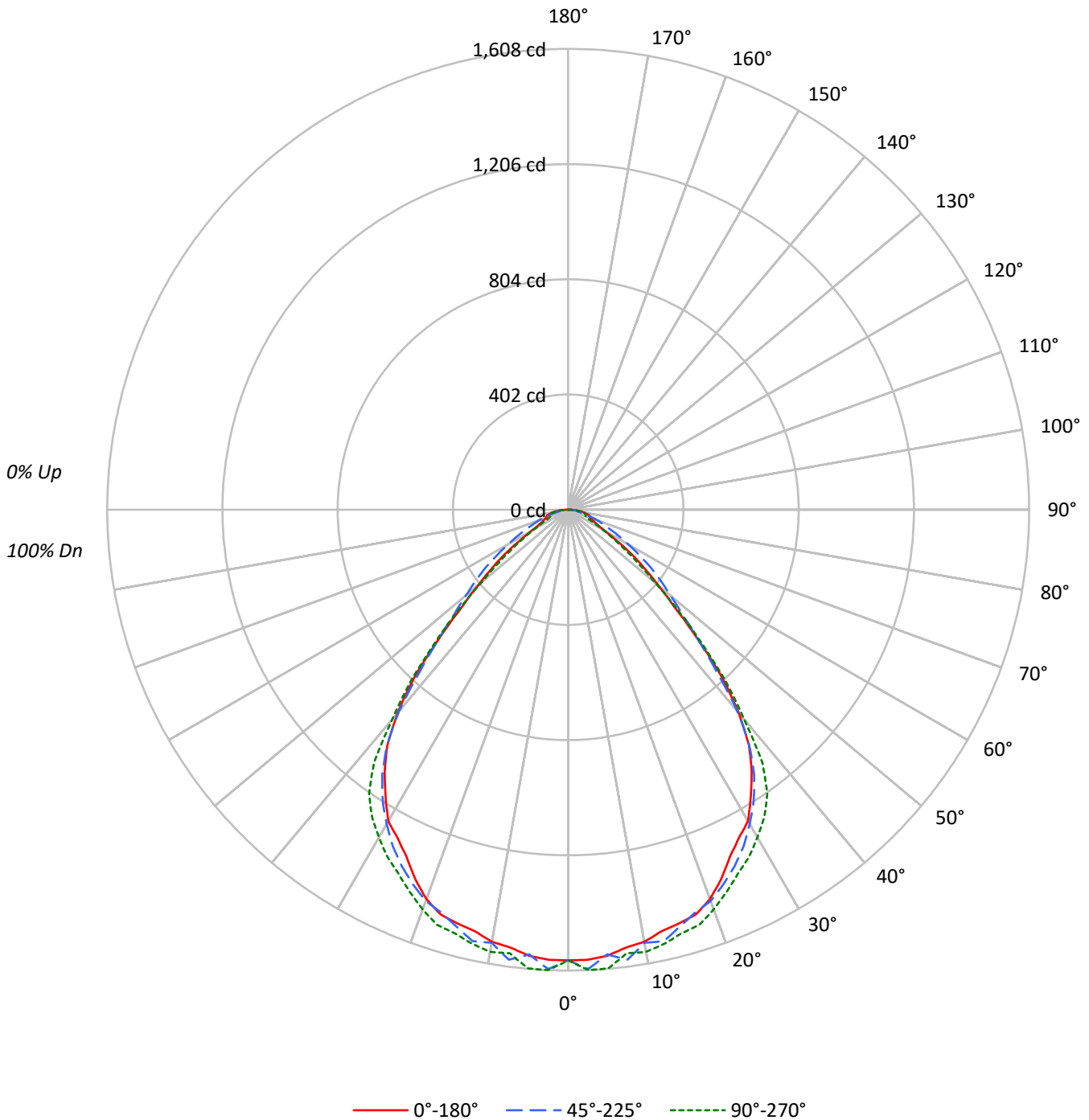
Input Watts (W): 22.506
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4231	4231	4231
5°	4220	4207	4340
10°	4182	4194	4281
15°	4163	4194	4262
20°	4140	4161	4250
25°	3964	4075	4160
30°	3898	3934	4102
35°	3666	3713	3977
40°	3249	3226	3354
45°	2426	2432	2500
50°	1708	1943	1654
55°	1261	1641	1131
60°	788	1297	738
65°	642	1028	516
70°	637	856	509
75°	791	628	658
80°	882	496	804
85°	877	923	898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.7	5.0
10°-20°	426.3	14.1
20°-30°	631.4	20.9
30°-40°	707.3	23.4
40°-50°	519.7	17.2
50°-60°	290.5	9.6
60°-70°	161.9	5.4
70°-80°	95.1	3.2
80°-90°	35.0	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°	1207.5	40.0
0°-40°	1914.8	63.5
0°-60°	2725.0	90.3
0°-90°	3017.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3017.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1572	1572	1572	1572	1572	
5°	1562	1592	1557	1589	1606	148
15°	1494	1503	1506	1528	1530	422
25°	1335	1346	1373	1392	1401	619
35°	1116	1117	1130	1181	1211	691
45°	638	690	639	684	657	498
55°	269	327	350	349	241	240
65°	101	179	161	207	81	104
75°	76	107	60	122	63	76
85°	28	42	30	38	29	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1572.4	1572.4	1572.4	1572.4	1572.4
2.5°	1571.7	1585.9	1604.4	1606.5	1607.9
5°	1562.4	1591.6	1557.4	1589.4	1606.5
7.5°	1541.1	1558.9	1583.8	1551.8	1561.0
10°	1530.4	1534.7	1534.7	1574.5	1566.7
12.5°	1506.3	1534.7	1541.8	1534.0	1551.1
15°	1494.2	1503.4	1505.6	1528.3	1529.7
17.5°	1480.7	1478.5	1473.6	1489.9	1519.1
20°	1445.8	1438.0	1453.0	1472.9	1484.2
22.5°	1394.7	1396.8	1414.6	1430.9	1443.7
25°	1335.0	1345.6	1372.6	1391.8	1401.1
27.5°	1290.2	1305.8	1324.3	1347.0	1365.5
30°	1254.6	1253.2	1266.0	1298.7	1320.0
32.5°	1185.7	1190.7	1204.2	1243.3	1273.1
35°	1116.0	1116.7	1130.2	1181.4	1210.6
37.5°	1035.7	1030.0	1037.8	1093.3	1112.5
40°	924.8	926.2	918.4	957.5	954.7
42.5°	795.4	806.8	766.3	817.5	813.9
45°	637.6	689.5	639.0	684.5	656.8
47.5°	503.3	580.0	538.1	571.5	519.6
50°	408.0	486.9	464.2	479.1	395.2
52.5°	334.8	398.8	405.9	409.4	308.5
55°	268.7	327.0	349.7	349.0	241.0
57.5°	198.3	265.9	292.2	302.8	182.7
60°	146.4	221.1	241.0	264.4	137.2
62.5°	118.0	194.1	199.0	231.7	104.5
65°	100.9	179.1	161.4	206.9	81.0
67.5°	89.6	167.0	131.5	184.8	69.0
70°	81.0	148.6	108.8	165.6	64.7
72.5°	78.9	126.5	83.9	147.9	64.0
75°	76.1	107.3	60.4	121.6	63.3
77.5°	65.4	91.7	43.4	93.8	59.0
80°	56.9	73.2	32.0	70.4	51.9
82.5°	44.1	55.4	28.4	53.3	41.9
85°	28.4	41.9	29.9	38.4	29.1
87.5°	13.5	23.5	21.3	20.6	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)