

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: P291455

Luminaire Tested: **14GR-LD5-32-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291455
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-32-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2703.0 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

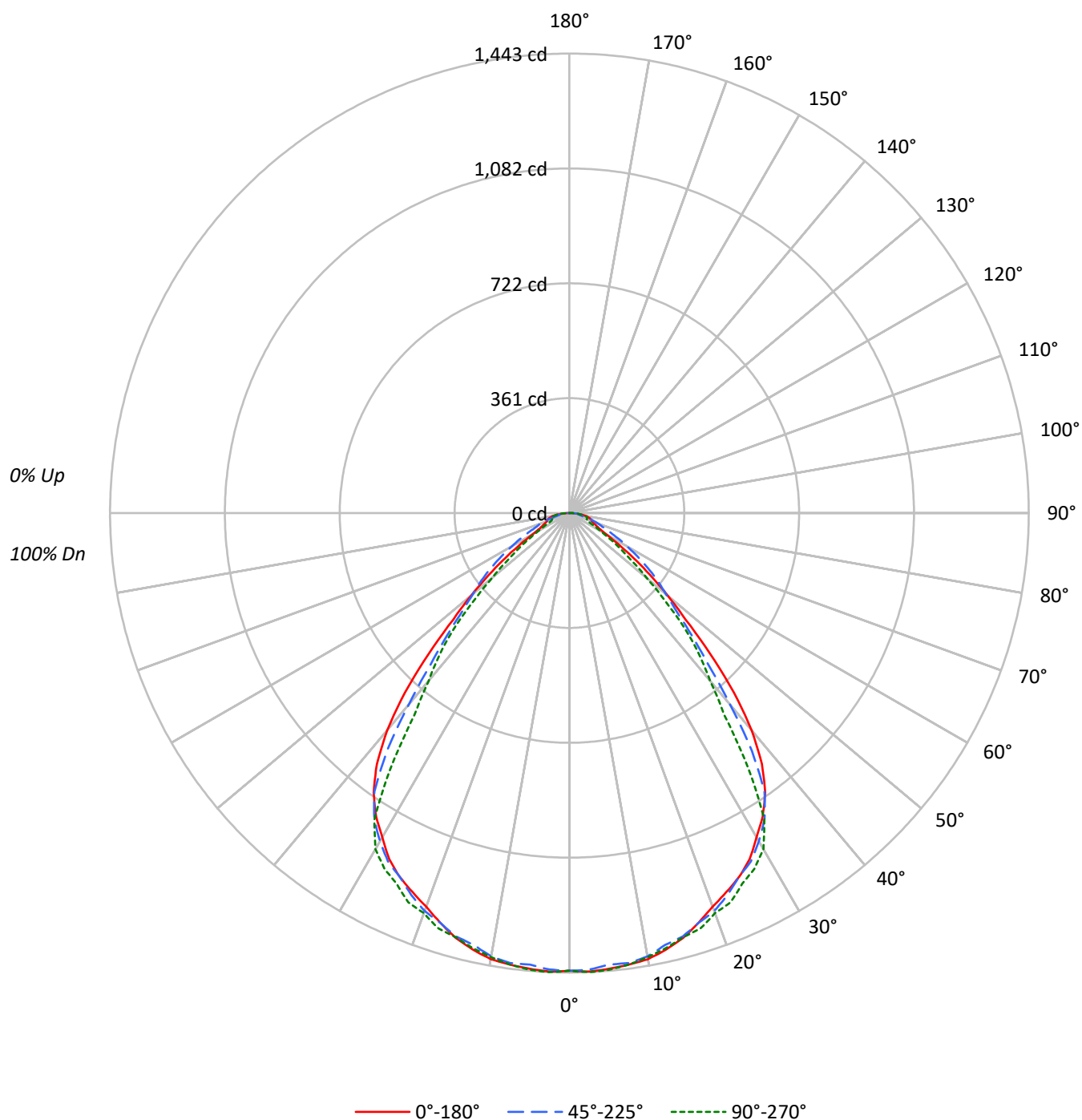
Input Watts (W): 26.133
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	107	104	100	108	105	102	99	101	98	96		97	95	93		93
2	103	96	90	86	100	94	89	85	91	87	83		88	84	81		85
3	95	87	80	74	93	85	79	74	82	77	73		80	75	71		77
4	89	79	71	65	87	77	70	65	75	69	64		73	68	63		71
5	83	71	64	58	81	70	63	58	68	62	57		67	61	57		65
6	77	65	58	52	75	64	57	52	63	56	51		61	55	51		60
7	72	60	52	47	70	59	52	47	58	51	46		56	51	46		55
8	67	55	48	43	66	55	47	42	53	47	42		52	46	42		51
9	63	51	44	39	62	51	44	39	50	43	39		49	43	38		48
10	60	48	40	36	58	47	40	36	46	40	35		45	39	35		44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3868	3868	3868
5°	3881	3844	3889
10°	3887	3863	3870
15°	3847	3834	3842
20°	3767	3808	3829
25°	3744	3742	3814
30°	3653	3697	3787
35°	3523	3508	3224
40°	3128	2760	2417
45°	2374	2065	1955
50°	1684	1653	1326
55°	1152	1411	912
60°	713	1125	609
65°	587	867	441
70°	584	755	452
75°	701	541	605
80°	806	499	758
85°	763	880	858



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	5.0
10°-20°	389.3	14.4
20°-30°	585.4	21.7
30°-40°	638.1	23.6
40°-50°	446.8	16.5
50°-60°	252.9	9.4
60°-70°	138.4	5.1
70°-80°	83.9	3.1
80°-90°	31.8	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°	1111.0	41.1
0°-40°	1749.1	64.7
0°-60°	2448.9	90.6
0°-90°	2703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2703.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1437	1434	1423	1440	1440	137
15°	1381	1377	1376	1396	1379	388
25°	1261	1264	1260	1290	1284	579
35°	1072	1067	1068	1014	981	661
45°	624	651	543	536	514	484
55°	246	294	301	298	194	225
65°	92	152	136	172	69	95
75°	67	97	52	102	58	70
85°	25	40	28	35	28	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1437.4	1437.4	1437.4	1437.4	1437.4
2.5°	1441.1	1439.2	1434.9	1443.5	1442.9
5°	1436.7	1434.3	1423.1	1439.8	1439.8
7.5°	1430.5	1424.4	1425.0	1434.3	1429.9
10°	1422.5	1412.0	1413.8	1416.3	1416.3
12.5°	1403.9	1394.0	1389.1	1397.1	1399.6
15°	1381.0	1377.3	1376.1	1395.9	1379.2
17.5°	1348.9	1356.9	1349.5	1365.6	1368.1
20°	1315.5	1330.9	1329.7	1340.8	1337.1
22.5°	1288.2	1298.1	1298.1	1311.7	1322.9
25°	1261.0	1263.5	1260.4	1289.5	1284.5
27.5°	1225.7	1223.9	1233.8	1248.6	1258.5
30°	1175.6	1176.2	1189.9	1209.7	1218.9
32.5°	1129.8	1124.3	1141.0	1149.6	1139.7
35°	1072.3	1067.3	1068.0	1013.5	981.3
37.5°	993.7	998.0	941.1	841.5	799.4
40°	890.4	899.0	785.8	711.6	688.0
42.5°	765.4	767.9	644.1	620.0	604.5
45°	623.7	650.9	542.6	535.8	513.6
47.5°	494.4	545.1	454.8	459.1	405.9
50°	402.2	452.9	394.8	396.6	316.8
52.5°	318.0	367.5	348.4	342.8	248.7
55°	245.6	293.9	300.7	298.2	194.3
57.5°	180.7	232.6	252.4	261.7	149.7
60°	132.4	190.0	209.1	227.7	113.2
62.5°	105.2	164.6	171.4	198.6	87.9
65°	92.2	151.6	136.1	172.0	69.3
67.5°	82.3	144.2	110.8	152.2	60.6
70°	74.2	129.9	95.9	136.1	57.5
72.5°	74.2	113.8	75.5	120.7	58.2
75°	67.4	97.1	52.0	102.1	58.2
77.5°	60.0	82.9	39.0	82.9	54.4
80°	52.0	65.0	32.2	63.7	48.9
82.5°	38.4	48.9	27.8	47.6	39.6
85°	24.7	40.2	28.5	34.6	27.8
87.5°	11.8	20.4	17.9	17.3	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)