

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: NEO-RAY

Report Number: P199415

Luminaire Tested: **S122-DIW-U2-LO-30-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199415
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27883 P27986)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122-DIW-U2-LO-30-0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-3000K, NO LENS
DOWNLIGHT LLO-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

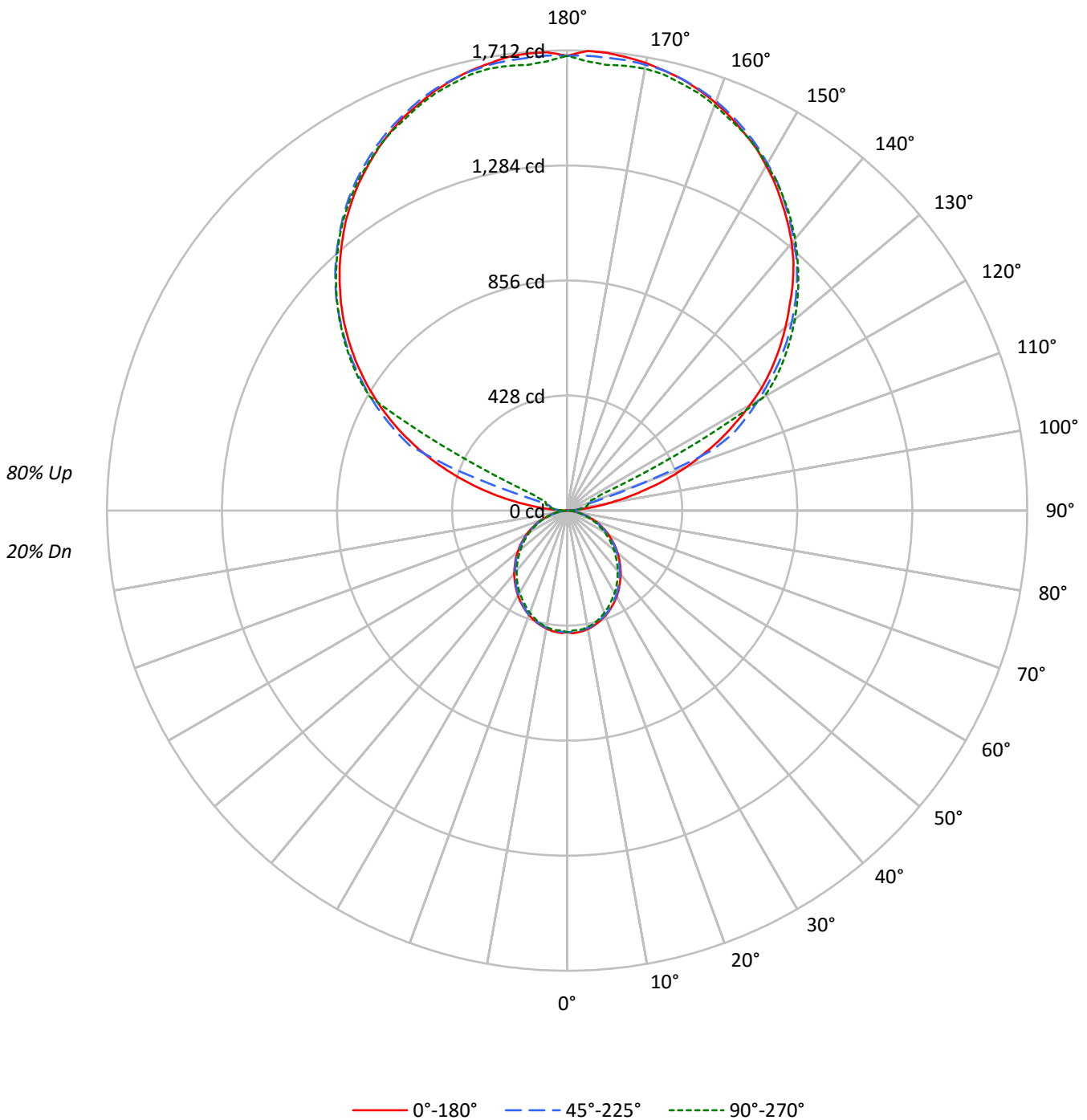
Lumens per Lamp: N/A
Luminaire Lumens: 5964.9 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

Input Watts (W): 52.3
Input Voltage (V): NR
Input Current (A_{in}): 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	0
RCR																		
0	100	100	100	100	88	88	88	88	66	66	66	46	46	46	28	28	28	20
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	25	24	24	16
2	83	76	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	67	60	54	66	59	53	49	45	41	38	32	29	27	19	18	17	12
4	69	59	51	46	61	52	46	41	40	35	32	28	25	23	17	16	15	10
5	63	52	44	39	55	46	40	35	35	31	27	25	22	20	15	14	13	9
6	58	47	39	33	51	41	35	30	32	27	24	23	20	17	14	12	11	8
7	53	42	34	29	47	37	31	26	29	24	21	20	17	15	13	11	10	7
8	49	38	30	25	44	34	27	23	26	21	18	19	16	13	12	10	9	6
9	46	34	27	22	40	31	24	20	24	19	16	17	14	12	11	9	8	5
10	43	31	24	20	38	28	22	18	22	17	14	16	13	11	10	8	7	5

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7154	7154	7154
5°	7163	5926	7152
10°	7066	5060	7049
15°	6932	4353	6905
20°	6775	3746	6741
25°	6587	3233	6552
30°	6394	2810	6341
35°	6163	2431	6105
40°	5935	2091	5881
45°	5697	1789	5597
50°	5431	1517	5314
55°	5134	1271	5049
60°	4831	1042	4708
65°	4462	818	4308
70°	4006	615	3811
75°	3345	414	3122
80°	2491	241	2264
85°	1549	95	1301



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	0.7
10°-20°	120.7	2.0
20°-30°	178.1	3.0
30°-40°	207.7	3.5
40°-50°	208.1	3.5
50°-60°	182.0	3.1
60°-70°	133.9	2.2
70°-80°	72.6	1.2
80°-90°	18.6	0.3
90°-100°	41.5	0.7
100°-110°	190.0	3.2
110°-120°	552.3	9.3
120°-130°	862.9	14.5
130°-140°	930.3	15.6
140°-150°	879.2	14.7
150°-160°	717.0	12.0
160°-170°	466.6	7.8
170°-180°	160.8	2.7
0°-30°	341.5	5.7
0°-40°	549.1	9.2
0°-60°	939.2	15.7
0°-90°	1164.3	19.5
90°-120°	783.8	13.1
90°-150°	3456.3	57.9
90°-180°	4801.0	80.5
0°-180°	5964.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	452	452	452	452	452	
5°	455	450	447	449	454	43
15°	434	430	426	430	432	122
25°	394	390	380	389	392	181
35°	340	335	324	333	336	213
45°	278	273	260	270	273	214
55°	211	207	194	203	207	189
65°	143	137	127	133	138	141
75°	74	70	64	65	69	78
85°	18	16	14	14	15	20
90°	1	2	2	2	0	2
95°	41	33	38	39	72	58
105°	305	65	78	67	359	324
115°	630	684	139	707	674	621
125°	932	962	985	977	956	831
135°	1186	1210	1216	1220	1197	914
145°	1395	1408	1410	1417	1400	873
155°	1554	1564	1553	1565	1555	717
165°	1660	1662	1645	1658	1657	469
175°	1710	1691	1664	1691	1707	162
180°	1692	1692	1692	1692	1692	



TEST NUMBER: P199415

CATALOG NUMBER: S122-DIW-U2-LO-30-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3
2.5°	456.9	450.6	451.6	450.2	446.7	449.9	451.3	450.2	456.2
5°	454.8	448.5	449.5	447.8	446.7	447.8	449.2	447.8	454.1
7.5°	452.0	445.0	447.1	446.0	445.0	445.7	446.7	444.3	450.9
10°	447.1	440.1	443.3	441.2	440.1	440.8	442.6	439.1	446.0
12.5°	441.5	434.5	437.7	435.2	434.2	434.2	437.3	433.5	439.8
15°	433.8	428.2	430.3	427.9	426.1	427.2	429.6	426.8	432.1
17.5°	425.1	420.2	422.6	418.8	415.6	418.1	421.6	418.4	423.7
20°	416.0	410.4	412.8	407.6	404.8	406.9	411.4	409.0	413.9
22.5°	405.8	400.6	402.7	395.7	392.9	394.6	401.3	398.8	403.4
25°	393.6	389.4	389.7	382.7	379.6	381.7	388.7	387.3	391.5
27.5°	381.7	377.5	377.8	369.8	366.3	369.1	376.1	375.0	378.9
30°	368.7	364.9	364.5	356.5	353.7	355.4	362.4	362.4	365.6
32.5°	354.4	351.2	349.5	342.1	339.3	341.4	347.4	348.4	350.9
35°	339.7	337.6	335.1	328.2	324.3	327.1	332.7	334.1	336.5
37.5°	325.0	322.6	319.8	312.8	308.6	312.1	317.0	319.4	321.2
40°	309.6	307.9	304.7	297.7	292.5	296.0	301.6	304.4	306.8
42.5°	293.9	292.8	289.0	281.6	276.4	280.2	286.2	288.6	289.7
45°	278.1	276.7	273.2	265.5	259.9	264.1	270.4	272.9	273.2
47.5°	260.6	261.0	256.8	249.1	243.5	247.7	253.3	256.8	258.2
50°	244.9	245.2	240.3	232.6	227.0	230.2	236.8	240.3	239.6
52.5°	228.1	229.1	223.9	216.2	210.6	213.8	220.4	224.2	224.6
55°	210.6	212.4	206.8	199.1	194.2	197.3	202.9	207.5	207.1
57.5°	193.8	195.2	189.6	182.6	177.7	180.5	185.4	191.4	190.0
60°	177.0	178.4	172.5	165.5	161.3	162.7	168.3	173.2	172.5
62.5°	159.9	161.3	155.0	148.7	143.8	145.9	150.8	156.7	155.0
65°	142.7	143.8	137.1	131.5	127.3	129.4	132.9	139.2	137.8
67.5°	125.6	126.3	120.3	115.1	111.6	112.6	115.8	121.0	120.3
70°	108.5	109.2	103.6	98.7	95.5	96.6	99.0	103.9	103.2
72.5°	91.0	92.0	86.4	81.9	78.7	79.8	81.5	86.1	85.0
75°	73.5	74.2	70.0	66.5	63.7	64.0	65.4	68.9	68.6
77.5°	57.4	59.1	54.6	51.4	49.3	49.7	51.4	53.2	52.5
80°	41.6	43.7	40.6	38.1	36.4	36.0	37.4	38.8	37.8
82.5°	29.4	29.7	27.6	25.9	24.1	24.1	25.2	26.2	25.2
85°	17.5	18.2	16.4	15.0	14.0	13.6	14.3	15.4	14.7
87.5°	8.4	8.7	7.0	6.3	5.2	4.9	5.2	5.9	5.9
90°	0.7	1.7	1.7	2.1	2.4	2.4	2.1	2.1	0.3
92.5°	5.9	13.7	13.7	16.7	17.6	20.6	23.5	24.5	26.5
95°	41.2	29.4	33.3	36.3	38.2	41.2	39.2	36.3	71.6
97.5°	92.1	37.2	47.1	49.0	52.0	52.9	52.9	41.2	130.4
100°	153.9	43.1	55.9	63.7	65.7	65.7	59.8	92.1	200.9
102.5°	226.4	192.1	60.8	70.6	74.5	71.6	63.7	312.7	279.4
105°	304.9	346.0	64.7	74.5	78.4	76.5	66.7	385.2	358.8
107.5°	387.2	419.5	68.6	78.4	82.3	79.4	81.4	459.7	438.2
110°	469.5	497.0	307.8	81.4	85.3	81.4	426.4	535.2	517.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	547.9	576.4	578.3	86.3	87.2	93.1	634.2	611.7	597.0
115°	630.3	653.8	684.2	398.0	139.2	438.2	706.7	687.1	674.4
117.5°	705.8	728.3	751.8	699.9	533.2	761.6	776.3	761.6	748.9
120°	785.2	807.7	822.4	845.9	847.9	847.9	845.0	833.2	819.5
122.5°	863.6	878.3	890.0	913.6	921.4	912.6	910.6	899.8	889.1
125°	932.2	945.9	961.6	977.3	985.1	976.3	977.3	963.6	955.7
127.5°	996.9	1008.7	1029.2	1039.0	1046.9	1037.1	1041.0	1026.3	1020.4
130°	1059.6	1067.5	1091.0	1098.8	1105.7	1099.8	1102.8	1087.1	1082.2
132.5°	1121.4	1132.2	1151.8	1154.7	1162.5	1153.7	1164.5	1142.9	1141.0
135°	1186.1	1194.9	1209.6	1210.6	1216.5	1211.6	1220.4	1202.7	1196.9
137.5°	1246.8	1250.8	1263.5	1259.6	1268.4	1260.6	1273.3	1255.7	1251.7
140°	1299.8	1302.7	1311.5	1313.5	1319.4	1312.5	1322.3	1304.7	1302.7
142.5°	1348.8	1352.7	1360.6	1359.6	1366.4	1359.6	1371.3	1355.7	1353.7
145°	1394.9	1400.7	1407.6	1404.7	1409.6	1405.6	1417.4	1400.7	1399.8
147.5°	1440.9	1442.9	1452.7	1447.8	1450.7	1445.8	1458.6	1444.9	1442.9
150°	1481.1	1485.0	1490.9	1485.0	1486.0	1483.1	1495.8	1484.1	1482.1
152.5°	1521.3	1520.3	1529.2	1517.4	1522.3	1517.4	1532.1	1520.3	1520.3
155°	1553.7	1552.7	1563.5	1550.7	1552.7	1548.8	1565.4	1551.7	1554.6
157.5°	1586.0	1581.1	1593.8	1581.1	1577.2	1580.1	1592.9	1580.1	1586.0
160°	1614.4	1609.5	1621.3	1607.6	1604.6	1606.6	1620.3	1608.6	1610.5
162.5°	1638.9	1632.1	1642.9	1628.2	1628.2	1625.2	1642.9	1631.1	1637.0
165°	1660.5	1652.7	1661.5	1646.8	1644.8	1642.9	1658.5	1650.7	1656.6
167.5°	1676.2	1668.3	1676.2	1659.5	1661.5	1657.6	1673.2	1668.3	1675.2
170°	1690.9	1681.1	1684.0	1669.3	1669.3	1666.4	1683.0	1678.1	1687.9
172.5°	1700.7	1689.9	1689.9	1673.2	1669.3	1671.3	1688.9	1687.9	1701.7
175°	1709.5	1694.8	1690.9	1675.2	1664.4	1674.2	1690.9	1693.8	1706.6
177.5°	1711.5	1697.8	1693.8	1676.2	1673.2	1674.2	1694.8	1695.8	1706.6
180°	1691.9	1691.9	1691.9	1691.9	1691.9	1691.9	1691.9	1691.9	1691.9

(END OF REPORT)