

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: P199448

Luminaire Tested: **S123-DIW-U2-1-35-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199448
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27889 P27889)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-DIW-U2-1-35-0048-1D-UDD-1-NA-W
Description: DEFINE 3-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL2-3500K, NO LENS
DOWNLIGHT LL1-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

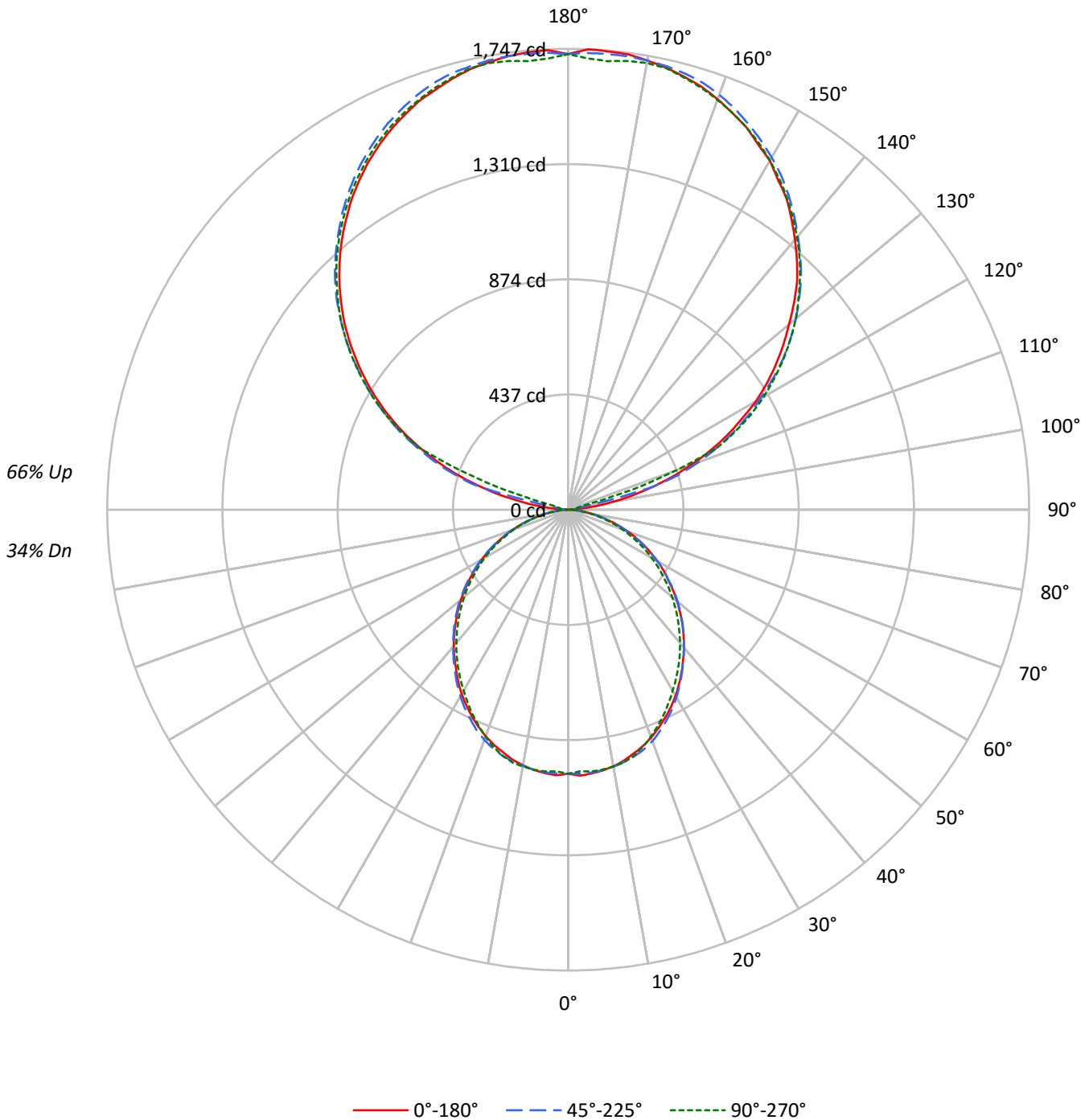
Lumens per Lamp: N/A
Luminaire Lumens: 7750.0 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.32
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

Input Watts (W): 65.5
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

TEST NUMBER: P199448

CATALOG NUMBER: S123-DIW-U2-1-35-0048-1D-UDD-1-NA-W

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	36	36	35	29
2	86	79	73	68	77	71	66	62	57	53	50	44	42	40	32	31	29	24
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	27	25	20
4	71	61	53	47	64	55	49	44	45	40	36	35	31	29	25	23	21	17
5	65	54	46	40	59	49	42	37	40	35	31	31	27	25	23	21	19	15
6	60	48	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	15	12
8	52	40	32	27	46	36	29	25	29	24	21	23	20	17	17	15	13	10
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12	9
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	10554	10554	10554
5°	10545	9319	10532
10°	10407	8369	10370
15°	10197	7513	10145
20°	9977	6644	9924
25°	9702	5863	9639
30°	9412	5166	9332
35°	9064	4570	8955
40°	8717	4017	8619
45°	8347	3505	8225
50°	7949	3025	7836
55°	7507	2568	7382
60°	7101	2145	6887
65°	6558	1722	6297
70°	5881	1313	5573
75°	4930	905	4572
80°	3689	541	3302
85°	2089	231	1847



TEST NUMBER: P199448

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	1.2
10°-20°	270.9	3.5
20°-30°	400.3	5.2
30°-40°	466.0	6.0
40°-50°	467.6	6.0
50°-60°	409.3	5.3
60°-70°	302.3	3.9
70°-80°	165.1	2.1
80°-90°	42.7	0.6
90°-100°	40.1	0.5
100°-110°	284.3	3.7
110°-120°	680.5	8.8
120°-130°	880.8	11.4
130°-140°	956.0	12.3
140°-150°	905.0	11.7
150°-160°	739.2	9.5
160°-170°	480.3	6.2
170°-180°	164.8	2.1
0°-30°	766.1	9.9
0°-40°	1232.1	15.9
0°-60°	2109.0	27.2
0°-90°	2619.1	33.8
90°-120°	1004.8	13.0
90°-150°	3746.7	48.3
90°-180°	5131.0	66.2
0°-180°	7750.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1001	1001	1001	1001	1001	
5°	1004	1001	996	1000	1003	95
15°	957	968	965	965	952	270
25°	870	881	856	876	864	401
35°	749	752	728	748	740	469
45°	611	613	588	608	602	471
55°	462	464	439	460	454	415
65°	315	311	291	304	302	311
75°	162	159	147	150	151	173
85°	35	38	35	34	31	41
90°	2	4	3	4	1	4
95°	51	22	25	24	62	68
105°	327	321	49	376	354	347
115°	662	688	696	705	684	653
125°	962	992	996	995	976	859
135°	1227	1248	1242	1250	1226	943
145°	1442	1456	1445	1457	1433	900
155°	1599	1614	1599	1616	1590	736
165°	1699	1712	1696	1712	1692	480
175°	1744	1734	1707	1735	1741	166
180°	1727	1727	1727	1727	1727	



TEST NUMBER: P199448

CATALOG NUMBER: S123-DIW-U2-1-35-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1000.9	1000.9	1000.9	1000.9	1000.9	1000.9	1000.9	1000.9	1000.9
2.5°	1009.2	998.8	1001.6	1000.2	992.5	1000.2	1000.9	998.1	1007.8
5°	1004.3	995.3	1000.9	998.8	996.0	998.8	999.5	993.9	1003.0
7.5°	997.4	989.8	996.0	995.3	993.9	995.3	994.6	987.0	995.3
10°	987.7	980.7	989.1	990.5	988.4	989.8	986.3	978.6	984.2
12.5°	974.5	968.9	979.3	982.1	980.7	981.4	976.6	965.4	971.0
15°	957.1	954.3	968.2	970.3	964.8	968.2	964.8	950.9	952.2
17.5°	940.4	937.7	952.9	950.2	942.5	948.1	948.8	933.5	934.9
20°	918.9	917.5	933.5	925.2	915.4	922.4	928.6	913.4	914.0
22.5°	895.3	896.7	908.5	896.7	887.0	893.9	905.7	891.1	889.7
25°	869.6	873.8	881.4	867.5	856.4	864.0	876.5	868.2	864.0
27.5°	843.2	849.5	852.2	836.3	825.1	832.8	848.8	843.2	836.3
30°	814.0	821.7	821.0	804.3	791.8	800.1	816.8	816.1	807.1
32.5°	782.1	792.5	786.9	771.0	760.5	766.8	783.5	785.6	775.1
35°	749.4	760.5	752.2	736.9	727.9	734.2	748.0	754.3	740.4
37.5°	716.1	727.2	717.5	702.9	693.9	700.1	713.3	721.0	707.8
40°	682.1	692.5	682.8	670.3	659.1	666.1	677.9	686.2	674.4
42.5°	647.3	658.4	648.0	635.5	623.7	632.7	643.2	651.5	639.0
45°	611.2	623.0	613.3	598.7	587.6	596.6	608.4	615.4	602.2
47.5°	574.4	588.3	577.2	561.9	550.8	559.8	572.3	579.3	566.8
50°	537.6	549.4	541.1	525.1	514.0	522.3	536.2	541.8	530.0
52.5°	500.1	514.0	504.3	488.3	477.9	484.8	498.0	504.3	491.8
55°	461.9	473.0	464.0	450.8	439.0	447.3	459.8	464.0	454.2
57.5°	428.5	436.9	428.5	414.0	402.8	409.1	420.9	426.5	416.7
60°	390.3	398.0	389.7	375.8	366.0	371.6	381.3	388.3	378.5
62.5°	352.1	359.8	350.1	337.6	328.5	334.8	343.1	349.4	340.3
65°	314.6	321.6	311.2	300.1	291.0	297.3	303.5	310.5	302.1
67.5°	276.4	282.7	273.0	261.9	254.2	259.1	264.6	271.6	264.6
70°	238.9	243.8	235.5	225.0	218.1	222.3	227.1	232.7	226.4
72.5°	201.4	207.7	197.3	188.9	182.7	184.1	189.6	193.8	188.9
75°	162.5	166.7	159.1	152.1	146.6	147.9	150.0	156.3	150.7
77.5°	126.4	131.3	125.0	118.8	114.6	116.0	116.7	120.9	115.3
80°	92.4	96.5	92.4	87.5	84.7	85.4	85.4	88.2	82.7
82.5°	61.8	66.0	63.2	59.7	59.0	57.6	57.6	59.7	54.2
85°	35.4	40.3	38.2	35.4	34.7	34.0	34.0	35.4	31.3
87.5°	16.0	19.4	17.4	15.3	13.9	13.2	13.2	15.3	11.8
90°	2.1	4.9	4.2	2.8	2.8	2.8	3.5	4.2	1.4
92.5°	11.0	13.0	13.0	13.0	13.0	15.0	16.0	16.0	19.0
95°	51.0	19.0	22.0	24.0	25.0	25.0	24.0	21.0	62.0
97.5°	106.0	84.0	27.0	30.0	32.0	31.0	29.0	107.0	120.0
100°	172.0	195.0	30.0	34.0	36.0	35.0	33.0	219.0	190.0
102.5°	245.0	272.0	108.0	38.0	39.0	38.0	165.0	295.0	271.0
105°	327.0	350.0	321.0	64.0	49.0	78.0	376.0	373.0	354.0
107.5°	410.0	433.0	438.0	284.0	257.0	298.0	460.0	454.0	440.0
110°	495.0	512.0	523.0	528.0	431.0	535.0	542.0	534.0	522.0



TEST NUMBER: P199448

CATALOG NUMBER: S123-DIW-U2-1-35-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	580.0	598.0	608.0	615.0	607.0	620.0	622.0	614.0	603.0
115°	662.0	678.0	688.0	699.0	696.0	701.0	705.0	694.0	684.0
117.5°	739.0	759.0	765.0	776.0	780.0	776.0	780.0	771.0	762.0
120°	820.0	836.0	840.0	850.0	855.0	849.0	854.0	846.0	836.0
122.5°	893.0	907.0	917.0	921.0	926.0	919.0	925.0	916.0	907.0
125°	962.0	977.0	992.0	991.0	996.0	988.0	995.0	984.0	976.0
127.5°	1028.0	1043.0	1061.0	1058.0	1062.0	1054.0	1063.0	1050.0	1043.0
130°	1092.0	1110.0	1126.0	1122.0	1126.0	1119.0	1127.0	1115.0	1108.0
132.5°	1161.0	1178.0	1188.0	1184.0	1184.0	1180.0	1191.0	1178.0	1168.0
135°	1227.0	1238.0	1248.0	1242.0	1242.0	1238.0	1250.0	1238.0	1226.0
137.5°	1283.0	1295.0	1302.0	1298.0	1298.0	1293.0	1305.0	1294.0	1282.0
140°	1337.0	1348.0	1354.0	1349.0	1349.0	1345.0	1357.0	1348.0	1335.0
142.5°	1390.0	1400.0	1406.0	1398.0	1398.0	1394.0	1409.0	1399.0	1384.0
145°	1442.0	1449.0	1456.0	1444.0	1445.0	1439.0	1457.0	1447.0	1433.0
147.5°	1481.0	1494.0	1502.0	1488.0	1488.0	1483.0	1502.0	1492.0	1476.0
150°	1528.0	1533.0	1542.0	1530.0	1529.0	1525.0	1543.0	1532.0	1518.0
152.5°	1560.0	1572.0	1580.0	1567.0	1566.0	1561.0	1581.0	1569.0	1555.0
155°	1599.0	1604.0	1614.0	1602.0	1599.0	1597.0	1616.0	1601.0	1590.0
157.5°	1627.0	1633.0	1647.0	1636.0	1628.0	1631.0	1646.0	1629.0	1620.0
160°	1656.0	1658.0	1674.0	1663.0	1654.0	1658.0	1673.0	1652.0	1649.0
162.5°	1681.0	1682.0	1697.0	1684.0	1677.0	1678.0	1696.0	1675.0	1670.0
165°	1699.0	1697.0	1712.0	1701.0	1696.0	1696.0	1712.0	1693.0	1692.0
167.5°	1716.0	1715.0	1722.0	1715.0	1714.0	1709.0	1721.0	1708.0	1711.0
170°	1729.0	1725.0	1729.0	1719.0	1719.0	1714.0	1730.0	1719.0	1723.0
172.5°	1741.0	1733.0	1733.0	1719.0	1716.0	1715.0	1734.0	1728.0	1734.0
175°	1744.0	1737.0	1734.0	1719.0	1707.0	1716.0	1735.0	1731.0	1741.0
177.5°	1747.0	1736.0	1733.0	1715.0	1712.0	1713.0	1734.0	1732.0	1744.0
180°	1727.0	1727.0	1727.0	1727.0	1727.0	1727.0	1727.0	1727.0	1727.0

(END OF REPORT)