

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: P199447

Luminaire Tested: **S123-DIP-U2-1-30-X-X0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199447
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-DIP-U2-1-30-X-X0048-1D-UDD-1-NA-W
Description: DEFINE 3-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL2-3000K, NO LENS
DOWNLIGHT LL1-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7596.8 lumens
Efficiency: N/A
Efficacy: 116.0 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

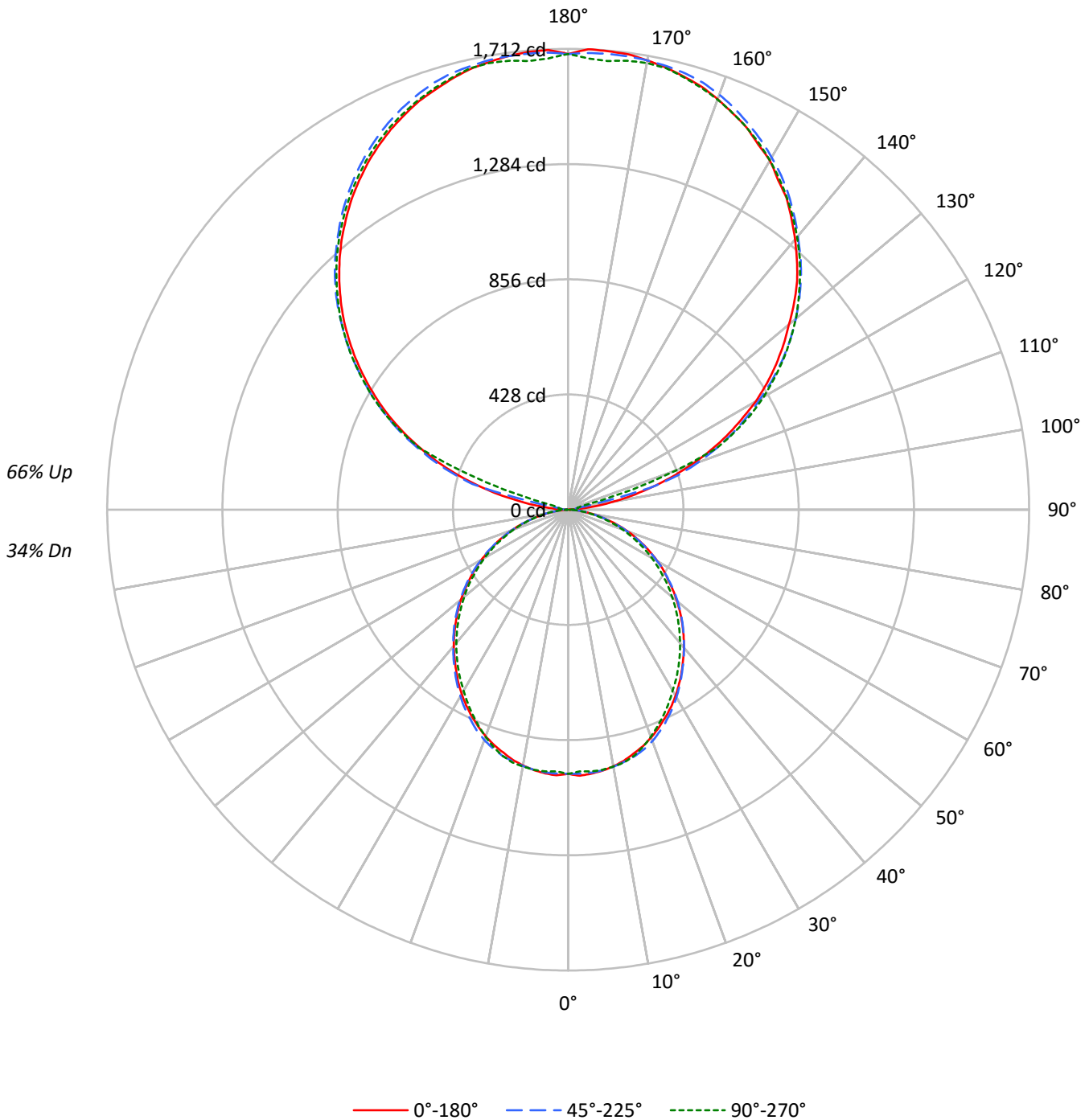
Input Watts (W): 65.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P199447

CATALOG NUMBER: S123-DIP-U2-1-30-X-X0048-1D-UDD-1-NA-W

Luminous Intensity Polar Plot





TEST NUMBER: P199447

CATALOG NUMBER: S123-DIP-U2-1-30-X-X0048-1D-UDD-1-NA-W

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°	10345	10345	10345
5°	10337	9135	10323
10°	10200	8203	10164
15°	9996	7364	9944
20°	9780	6513	9729
25°	9510	5747	9450
30°	9226	5064	9147
35°	8885	4479	8778
40°	8545	3937	8449
45°	8182	3436	8062
50°	7792	2965	7681
55°	7359	2517	7237
60°	6961	2103	6752
65°	6428	1688	6174
70°	5765	1287	5465
75°	4833	887	4481
80°	3617	531	3234
85°	2048	227	1806



TEST NUMBER: P199447

CATALOG NUMBER: S123-DIP-U2-1-30-X-X0048-1D-UDD-1-NA-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.0	1.2
10°-20°	265.5	3.5
20°-30°	392.4	5.2
30°-40°	456.8	6.0
40°-50°	458.4	6.0
50°-60°	401.2	5.3
60°-70°	296.3	3.9
70°-80°	161.9	2.1
80°-90°	41.8	0.6
90°-100°	39.3	0.5
100°-110°	278.7	3.7
110°-120°	667.0	8.8
120°-130°	863.4	11.4
130°-140°	937.1	12.3
140°-150°	887.1	11.7
150°-160°	724.6	9.5
160°-170°	470.8	6.2
170°-180°	161.5	2.1
0°-30°	751.0	9.9
0°-40°	1207.8	15.9
0°-60°	2067.3	27.2
0°-90°	2567.3	33.8
90°-120°	985.0	13.0
90°-150°	3672.6	48.3
90°-180°	5029.0	66.2
0°-180°	7596.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	981	981	981	981	981	
5°	984	981	976	980	983	93
15°	938	949	946	946	933	265
25°	852	864	840	859	847	393
35°	735	737	714	733	726	460
45°	599	601	576	596	590	462
55°	453	455	430	451	445	407
65°	308	305	285	298	296	305
75°	159	156	144	147	148	169
85°	35	37	34	33	31	40
90°	2	4	3	3	1	4
95°	50	22	24	24	61	66
105°	320	315	48	369	347	340
115°	649	674	682	691	670	640
125°	943	972	976	975	957	842
135°	1203	1223	1217	1225	1202	925
145°	1414	1427	1416	1428	1405	882
155°	1567	1582	1567	1584	1559	722
165°	1665	1678	1662	1678	1658	471
175°	1710	1700	1673	1701	1707	163
180°	1693	1693	1693	1693	1693	



TEST NUMBER: P199447

CATALOG NUMBER: S123-DIP-U2-1-30-X-X0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	981.1	981.1	981.1	981.1	981.1	981.1	981.1	981.1	981.1
2.5°	989.2	979.0	981.8	980.4	972.9	980.4	981.1	978.4	987.9
5°	984.5	975.6	981.1	979.0	976.3	979.0	979.7	974.3	983.1
7.5°	977.7	970.2	976.3	975.6	974.3	975.6	975.0	967.5	975.6
10°	968.1	961.3	969.5	970.9	968.8	970.2	966.8	959.3	964.7
12.5°	955.2	949.8	960.0	962.7	961.3	962.0	957.2	946.4	951.8
15°	938.2	935.5	949.1	951.1	945.7	949.1	945.7	932.1	933.4
17.5°	921.8	919.1	934.1	931.4	923.9	929.3	930.0	915.0	916.4
20°	900.7	899.4	915.0	906.9	897.3	904.1	910.3	895.3	896.0
22.5°	877.6	879.0	890.5	879.0	869.4	876.2	887.8	873.5	872.1
25°	852.4	856.5	864.0	850.4	839.5	847.0	859.2	851.0	847.0
27.5°	826.5	832.7	835.4	819.7	808.8	816.3	832.0	826.5	819.7
30°	797.9	805.4	804.7	788.4	776.1	784.3	800.7	800.0	791.1
32.5°	766.6	776.8	771.4	755.7	745.5	751.6	768.0	770.0	759.8
35°	734.6	745.5	737.3	722.4	713.5	719.6	733.3	739.4	725.8
37.5°	701.9	712.8	703.3	689.0	680.2	686.3	699.2	706.7	693.8
40°	668.6	678.8	669.3	657.0	646.1	652.9	664.5	672.7	661.1
42.5°	634.5	645.4	635.2	623.0	611.4	620.2	630.4	638.6	626.4
45°	599.1	610.7	601.2	586.9	576.0	584.8	596.4	603.2	590.3
47.5°	563.0	576.7	565.8	550.8	539.9	548.8	561.0	567.8	555.6
50°	527.0	538.5	530.4	514.7	503.8	512.0	525.6	531.0	519.5
52.5°	490.2	503.8	494.3	478.6	468.4	475.2	488.2	494.3	482.0
55°	452.8	463.6	454.8	441.9	430.3	438.5	450.7	454.8	445.3
57.5°	420.1	428.2	420.1	405.8	394.9	401.0	412.6	418.0	408.5
60°	382.6	390.1	381.9	368.3	358.8	364.2	373.8	380.6	371.1
62.5°	345.2	352.7	343.1	330.9	322.0	328.2	336.3	342.5	333.6
65°	308.4	315.2	305.0	294.1	285.3	291.4	297.5	304.3	296.2
67.5°	271.0	277.1	267.6	256.7	249.2	254.0	259.4	266.2	259.4
70°	234.2	239.0	230.8	220.6	213.8	217.9	222.6	228.1	222.0
72.5°	197.4	203.6	193.4	185.2	179.1	180.4	185.9	190.0	185.2
75°	159.3	163.4	155.9	149.1	143.7	145.0	147.1	153.2	147.7
77.5°	123.9	128.7	122.5	116.4	112.3	113.7	114.4	118.5	113.0
80°	90.6	94.6	90.6	85.8	83.1	83.7	83.7	86.5	81.0
82.5°	60.6	64.7	62.0	58.6	57.9	56.5	56.5	58.6	53.1
85°	34.7	39.5	37.4	34.7	34.0	33.4	33.4	34.7	30.6
87.5°	15.7	19.1	17.0	15.0	13.6	12.9	12.9	15.0	11.6
90°	2.0	4.8	4.1	2.7	2.7	2.7	3.4	4.1	1.4
92.5°	10.8	12.7	12.7	12.7	12.7	14.7	15.7	15.7	18.6
95°	50.0	18.6	21.6	23.5	24.5	24.5	23.5	20.6	60.8
97.5°	103.9	82.3	26.5	29.4	31.4	30.4	28.4	104.9	117.6
100°	168.6	191.1	29.4	33.3	35.3	34.3	32.3	214.7	186.2
102.5°	240.2	266.6	105.9	37.2	38.2	37.2	161.7	289.2	265.6
105°	320.5	343.1	314.7	62.7	48.0	76.5	368.6	365.6	347.0
107.5°	401.9	424.4	429.3	278.4	251.9	292.1	450.9	445.0	431.3
110°	485.2	501.9	512.7	517.6	422.5	524.4	531.3	523.4	511.7



TEST NUMBER: P199447

CATALOG NUMBER: S123-DIP-U2-1-30-X-X0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	568.5	586.2	596.0	602.8	595.0	607.7	609.7	601.9	591.1
115°	648.9	664.6	674.4	685.2	682.2	687.1	691.1	680.3	670.5
117.5°	724.4	744.0	749.9	760.7	764.6	760.7	764.6	755.8	746.9
120°	803.8	819.5	823.4	833.2	838.1	832.2	837.1	829.3	819.5
122.5°	875.3	889.1	898.9	902.8	907.7	900.8	906.7	897.9	889.1
125°	943.0	957.7	972.4	971.4	976.3	968.5	975.3	964.5	956.7
127.5°	1007.7	1022.4	1040.0	1037.1	1041.0	1033.2	1042.0	1029.2	1022.4
130°	1070.4	1088.1	1103.7	1099.8	1103.7	1096.9	1104.7	1093.0	1086.1
132.5°	1138.0	1154.7	1164.5	1160.6	1160.6	1156.7	1167.4	1154.7	1144.9
135°	1202.7	1213.5	1223.3	1217.4	1217.4	1213.5	1225.3	1213.5	1201.8
137.5°	1257.6	1269.4	1276.3	1272.3	1272.3	1267.4	1279.2	1268.4	1256.7
140°	1310.6	1321.3	1327.2	1322.3	1322.3	1318.4	1330.2	1321.3	1308.6
142.5°	1362.5	1372.3	1378.2	1370.4	1370.4	1366.4	1381.1	1371.3	1356.6
145°	1413.5	1420.3	1427.2	1415.4	1416.4	1410.5	1428.2	1418.4	1404.7
147.5°	1451.7	1464.5	1472.3	1458.6	1458.6	1453.7	1472.3	1462.5	1446.8
150°	1497.8	1502.7	1511.5	1499.7	1498.8	1494.8	1512.5	1501.7	1488.0
152.5°	1529.2	1540.9	1548.8	1536.0	1535.0	1530.1	1549.7	1538.0	1524.3
155°	1567.4	1572.3	1582.1	1570.3	1567.4	1565.4	1584.0	1569.3	1558.6
157.5°	1594.8	1600.7	1614.4	1603.7	1595.8	1598.7	1613.5	1596.8	1588.0
160°	1623.3	1625.2	1640.9	1630.1	1621.3	1625.2	1639.9	1619.3	1616.4
162.5°	1647.8	1648.7	1663.4	1650.7	1643.8	1644.8	1662.5	1641.9	1637.0
165°	1665.4	1663.4	1678.1	1667.4	1662.5	1662.5	1678.1	1659.5	1658.5
167.5°	1682.1	1681.1	1687.9	1681.1	1680.1	1675.2	1687.0	1674.2	1677.2
170°	1694.8	1690.9	1694.8	1685.0	1685.0	1680.1	1695.8	1685.0	1688.9
172.5°	1706.6	1698.7	1698.7	1685.0	1682.1	1681.1	1699.7	1693.8	1699.7
175°	1709.5	1702.7	1699.7	1685.0	1673.2	1682.1	1700.7	1696.8	1706.6
177.5°	1712.5	1701.7	1698.7	1681.1	1678.1	1679.1	1699.7	1697.8	1709.5
180°	1692.9	1692.9	1692.9	1692.9	1692.9	1692.9	1692.9	1692.9	1692.9

(END OF REPORT)