

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1024947

Luminaire Tested: S124DIP-B1020D590UB27-4F0-XX-W2A-F4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1024947
REPORT IS A COMBINATION OF REPORTS P995307 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIP-B1020D590UB27-4F0-XX-W2A-F4
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

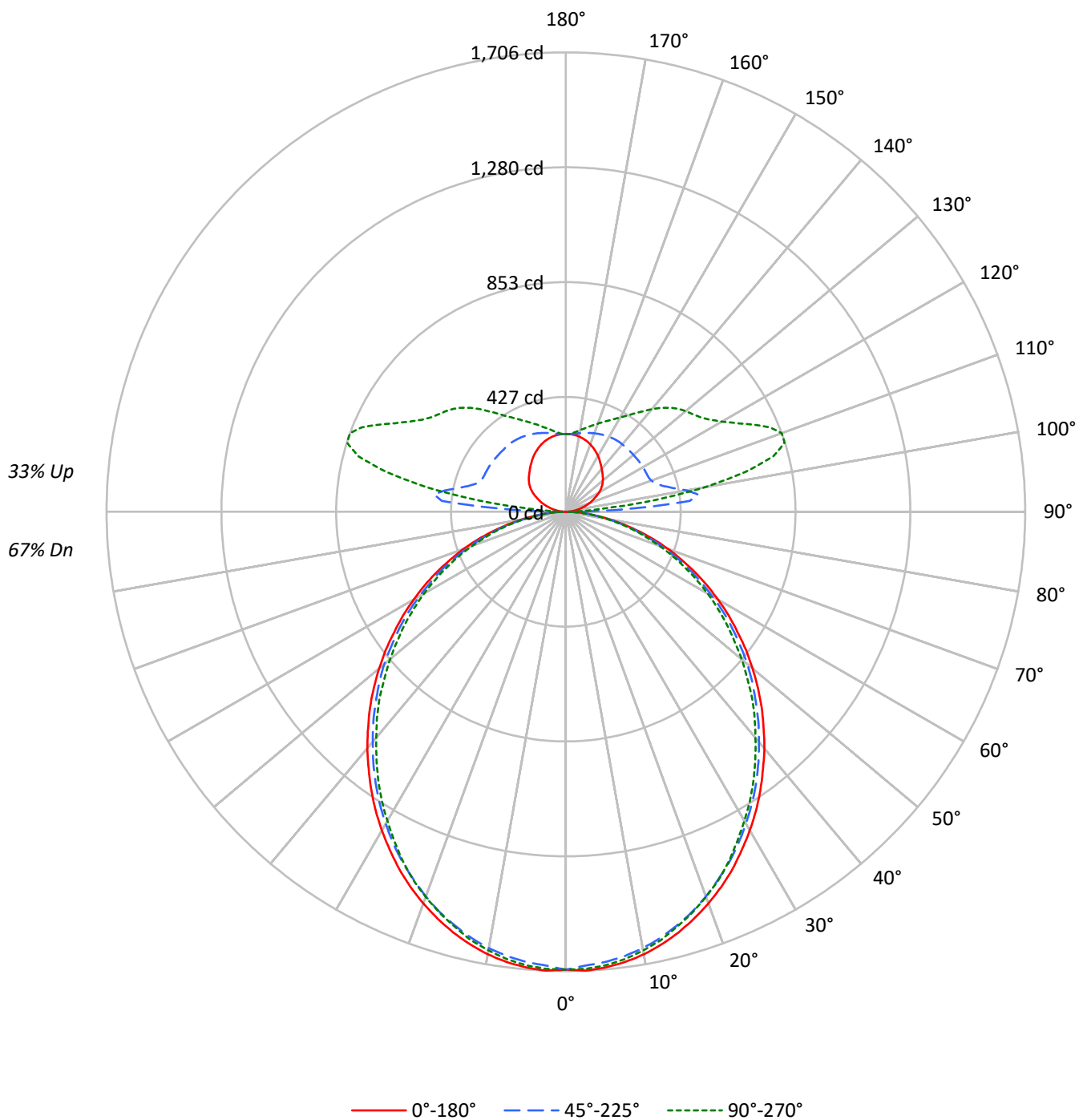
Lumens per Lamp: N/A
Luminaire Lumens: 6470.2 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 62.2
Input Voltage (V):
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: 24 FT

TEST NUMBER: P1024947

CATALOG NUMBER: S124DIP-B1020D590UB27-4F0-XX-W2A-F4

Luminous Intensity Polar Plot



TEST NUMBER: P1024947

CATALOG NUMBER: S124DIP-B1020D590UB27-4F0-XX-W2A-F4

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	111	111	111	111	105	105	105	105	93	93	93		82	82	82		72
1	102	97	93	90	96	92	88	85	82	79	76		72	70	68		64
2	93	85	79	73	87	80	75	70	72	67	63		64	60	57		56
3	84	75	67	61	79	71	64	58	63	58	53		56	52	48		50
4	77	66	58	52	73	63	55	50	56	50	46		50	45	42		44
5	71	59	51	44	67	56	48	43	50	44	39		45	40	36		40
6	66	53	45	39	62	50	43	37	45	39	34		41	36	32		36
7	61	48	40	34	57	46	38	33	41	35	30		37	32	28		33
8	56	44	36	30	53	42	34	29	38	32	27		34	29	25		31
9	53	40	32	27	50	38	31	26	35	29	24		31	26	23		28
10	49	37	29	24	46	35	28	24	32	26	22		29	24	21		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13864	13864	13864
5°	13876	13466	13482
10°	13758	13091	13000
15°	13561	12648	12456
20°	13310	12167	11894
25°	13026	11658	11288
30°	12684	11109	10623
35°	12329	10547	9980
40°	11960	9942	9296
45°	11573	9336	8657
50°	11144	8747	7948
55°	10678	8061	7246
60°	10201	7308	6513
65°	9655	6530	5688
70°	9027	5595	4803
75°	8086	4509	3847
80°	6893	3261	2707
85°	5356	1814	1457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11573 cd/sqm

TEST NUMBER: P1024947

CATALOG NUMBER: S124DIP-B1020D590UB27-4F0-XX-W2A-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	2.5
10°-20°	451.5	7.0
20°-30°	664.5	10.3
30°-40°	772.4	11.9
40°-50°	772.3	11.9
50°-60°	675.5	10.4
60°-70°	501.5	7.8
70°-80°	284.5	4.4
80°-90°	82.6	1.3
90°-100°	214.3	3.3
100°-110°	435.8	6.7
110°-120°	388.4	6.0
120°-130°	326.3	5.0
130°-140°	272.3	4.2
140°-150°	207.9	3.2
150°-160°	146.2	2.3
160°-170°	86.0	1.3
170°-180°	28.0	0.4
0°-30°	1276.2	19.7
0°-40°	2048.6	31.7
0°-60°	3496.5	54.0
0°-90°	4365.1	67.5
90°-120°	1038.5	16.1
90°-150°	1845.0	28.5
90°-180°	2105.0	32.5
0°-180°	6470.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1699	1693	1678	1693	1691	161
15°	1617	1612	1591	1599	1595	456
25°	1465	1455	1436	1437	1432	674
35°	1260	1251	1232	1222	1215	788
45°	1029	1019	997	982	978	793
55°	778	774	755	738	730	697
65°	527	520	507	493	486	522
75°	281	274	267	262	260	298
85°	74	74	71	71	70	79
90°	1	4	10	11	12	6
95°	19	59	462	229	138	21
105°	66	96	372	800	797	71
115°	117	146	332	637	766	116
125°	163	193	330	542	611	145
135°	193	230	327	481	546	149
145°	223	255	325	406	446	140
155°	253	273	316	358	374	117
165°	276	284	303	321	326	78
175°	288	288	291	295	294	27
180°	288	288	288	288	288	

TEST NUMBER: P1024947

CATALOG NUMBER: S124DIP-B1020D590UB27-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1700.2	1700.2	1700.2	1700.2	1700.2
2.5°	1705.7	1701.6	1686.6	1700.2	1698.9
5°	1698.9	1693.4	1678.4	1693.4	1690.7
7.5°	1686.6	1681.2	1664.8	1677.1	1675.7
10°	1668.9	1663.5	1645.7	1656.6	1653.9
12.5°	1645.7	1640.3	1621.2	1633.5	1629.4
15°	1617.1	1611.7	1591.3	1599.4	1595.3
17.5°	1584.4	1577.6	1558.6	1564.0	1561.3
20°	1547.7	1540.8	1520.4	1524.5	1521.8
22.5°	1508.1	1498.6	1478.2	1486.3	1480.9
25°	1464.6	1455.0	1435.9	1437.3	1431.9
27.5°	1415.5	1406.0	1388.3	1385.5	1378.7
30°	1366.5	1355.6	1337.8	1332.4	1325.6
32.5°	1314.7	1305.2	1286.1	1279.3	1272.5
35°	1260.2	1250.7	1231.6	1222.0	1215.2
37.5°	1203.0	1194.8	1174.4	1164.8	1155.3
40°	1147.1	1136.2	1115.8	1102.2	1095.3
42.5°	1087.2	1081.7	1058.6	1042.2	1038.1
45°	1028.6	1019.1	997.3	982.3	978.2
47.5°	967.3	960.5	940.0	923.7	912.8
50°	904.6	899.2	880.1	861.0	852.8
52.5°	843.3	836.5	816.1	799.7	788.8
55°	777.9	773.8	754.8	738.4	730.2
57.5°	716.6	712.5	693.4	677.1	668.9
60°	652.6	645.8	628.1	615.8	609.0
62.5°	589.9	584.5	565.4	554.5	547.7
65°	527.2	520.4	506.8	493.2	486.4
67.5°	463.2	457.8	444.1	430.5	429.1
70°	404.6	395.1	384.2	373.3	369.2
72.5°	342.0	332.4	324.2	316.1	312.0
75°	280.6	273.8	267.0	261.6	260.2
77.5°	220.7	218.0	211.2	209.8	205.7
80°	167.6	163.5	160.8	158.0	156.7
82.5°	115.8	114.4	114.4	113.1	111.7
85°	73.6	73.6	70.8	70.8	69.5
87.5°	35.4	34.1	32.7	32.7	32.7
90°	0.6	4.5	10.2	11.3	11.9
92.5°	7.9	43.6	222.1	73.4	51.6
95°	18.7	58.9	461.9	228.6	138.3
97.5°	31.2	65.2	494.2	467.0	332.1
100°	43.1	73.6	455.6	646.0	519.7
102.5°	54.4	83.9	407.5	758.2	682.9
105°	66.3	96.0	371.8	800.4	797.4
107.5°	79.3	108.5	348.5	787.7	851.8
110°	92.4	121.0	337.8	742.4	852.9

TEST NUMBER: P1024947

CATALOG NUMBER: S124DIP-B1020D590UB27-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.8	133.4	332.7	686.8	819.5
115°	116.7	146.4	331.5	637.0	765.6
117.5°	129.2	158.6	331.0	597.9	712.9
120°	141.7	170.6	331.0	571.5	669.8
122.5°	153.0	182.2	330.4	554.2	635.8
125°	162.6	193.2	329.8	542.0	610.9
127.5°	171.7	203.4	328.7	530.4	595.0
130°	179.1	213.4	328.1	516.6	581.4
132.5°	186.4	221.8	327.6	500.1	566.1
135°	193.2	230.0	327.0	481.2	546.3
137.5°	200.0	237.2	327.0	460.8	523.1
140°	207.4	243.7	326.4	440.9	497.6
142.5°	215.3	249.6	326.4	422.5	470.4
145°	222.7	255.0	325.3	405.8	446.0
147.5°	231.2	260.1	323.6	391.9	423.3
150°	239.1	264.9	321.9	379.1	404.6
152.5°	246.5	269.5	319.1	368.4	387.6
155°	253.3	273.4	316.2	358.2	373.5
157.5°	260.1	277.1	313.4	348.5	360.4
160°	266.4	280.2	310.0	338.9	348.5
162.5°	272.0	282.8	306.6	329.6	337.2
165°	276.0	284.5	303.2	321.0	325.9
167.5°	280.5	285.9	299.8	313.6	316.8
170°	283.4	287.0	296.4	306.4	308.3
172.5°	286.2	287.9	293.0	299.8	299.8
175°	287.9	288.5	290.7	294.7	293.6
177.5°	289.0	288.5	289.0	291.0	289.0
180°	288.5	288.5	288.5	288.5	288.5

(END OF REPORT)