

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: P1025019

Luminaire Tested: S124DIP-B1020D810UB40-4F0-XX-W2A-F4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1025019
REPORT IS A COMBINATION OF REPORTS P995409 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIP-B1020D810UB40-4F0-XX-W2A-F4
Description: Define 4 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

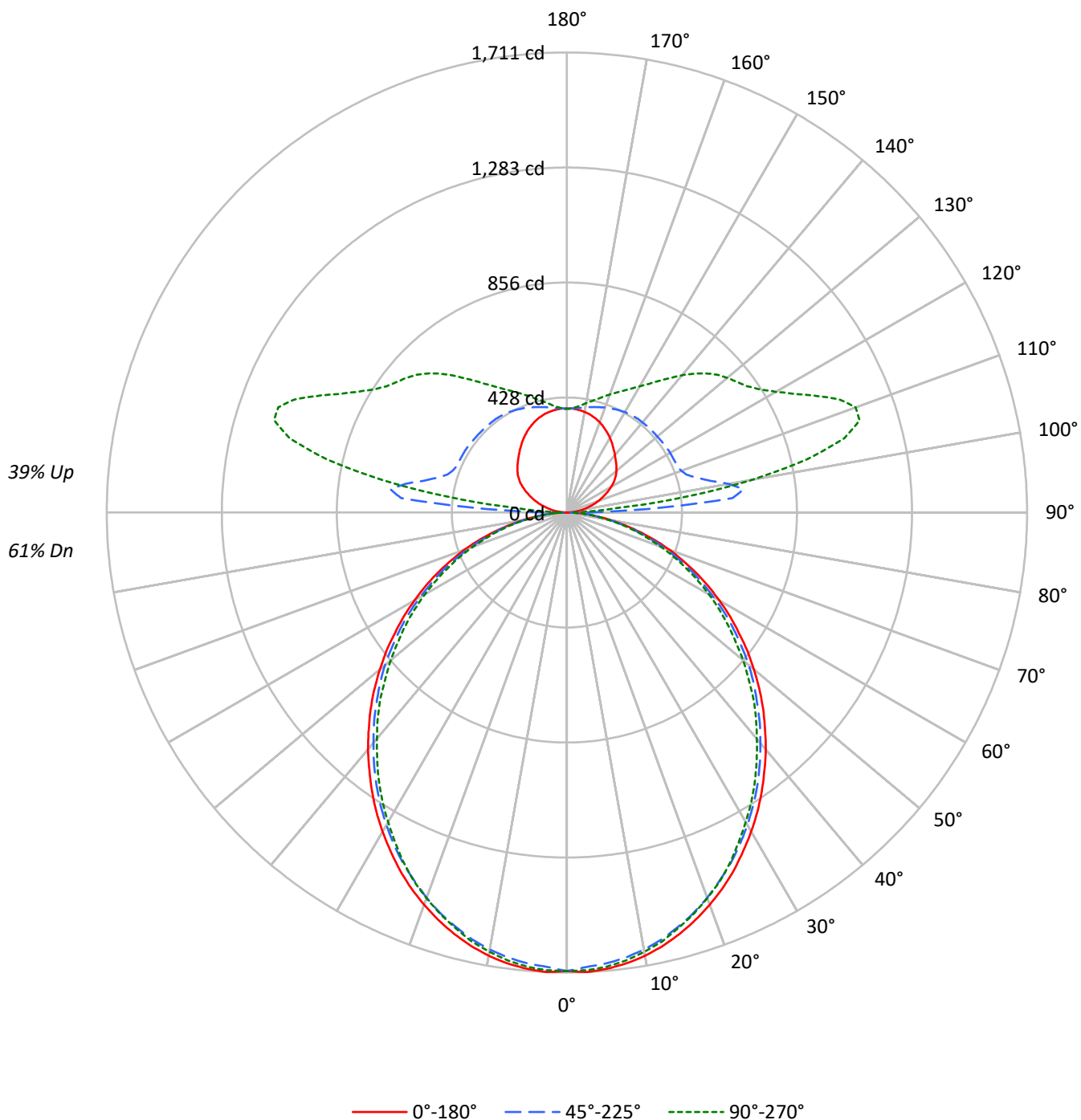
Lumens per Lamp: N/A
Luminaire Lumens: 7198.6 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 67.9
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: P1025019

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-XX-W2A-F4

Luminous Intensity Polar Plot



TEST NUMBER: P1025019

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-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	30	10
RCR																	
0	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66
1	100	96	92	88	94	90	86	83	78	76	73	68	66	64	58	57	56
2	91	84	77	72	85	78	73	68	69	64	61	60	56	54	51	49	47
3	83	74	66	60	78	69	62	57	61	55	51	53	49	45	45	43	40
4	76	65	57	51	71	61	54	48	54	48	44	47	43	39	41	37	34
5	70	58	50	44	65	55	47	42	48	42	38	42	38	34	37	33	30
6	65	52	44	38	60	49	42	36	44	37	33	38	33	30	33	29	26
7	60	47	39	33	56	45	37	32	40	33	29	35	30	26	30	27	24
8	55	43	35	30	52	41	33	28	36	30	26	32	27	23	28	24	21
9	52	39	32	26	48	37	30	25	33	27	23	29	25	21	26	22	19
10	48	36	29	24	45	34	27	23	31	25	21	27	22	19	24	20	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13906	13906	13906
5°	13917	13506	13522
10°	13800	13130	13039
15°	13602	12685	12494
20°	13349	12203	11929
25°	13064	11693	11321
30°	12721	11142	10654
35°	12365	10579	10010
40°	11995	9972	9324
45°	11608	9363	8683
50°	11177	8773	7973
55°	10710	8084	7267
60°	10231	7329	6533
65°	9684	6550	5705
70°	9053	5611	4818
75°	8112	4522	3859
80°	6914	3269	2714
85°	5370	1822	1461

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11608 cd/sqm

TEST NUMBER: P1025019

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-XX-W2A-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	2.2
10°-20°	452.8	6.3
20°-30°	666.4	9.3
30°-40°	774.7	10.8
40°-50°	774.6	10.8
50°-60°	677.5	9.4
60°-70°	503.0	7.0
70°-80°	285.4	4.0
80°-90°	83.2	1.2
90°-100°	287.0	4.0
100°-110°	583.8	8.1
110°-120°	520.4	7.2
120°-130°	437.1	6.1
130°-140°	364.8	5.1
140°-150°	278.6	3.9
150°-160°	195.8	2.7
160°-170°	115.2	1.6
170°-180°	37.4	0.5
0°-30°	1280.0	17.8
0°-40°	2054.7	28.5
0°-60°	3506.8	48.7
0°-90°	4378.5	60.8
90°-120°	1391.3	19.3
90°-150°	2471.7	34.3
90°-180°	2820.0	39.2
0°-180°	7198.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1704	1698	1683	1698	1696	162
15°	1622	1616	1596	1604	1600	457
25°	1469	1459	1440	1442	1436	676
35°	1264	1254	1235	1226	1219	790
45°	1032	1022	1000	985	981	795
55°	780	776	757	741	732	699
65°	529	522	508	495	488	523
75°	282	275	268	262	261	299
85°	74	74	71	71	70	79
90°	1	6	14	15	16	7
95°	25	79	619	306	185	27
105°	89	129	498	1072	1068	95
115°	156	196	444	853	1026	155
125°	218	259	442	726	818	194
135°	259	308	438	645	732	200
145°	298	342	436	544	598	187
155°	339	366	424	480	500	157
165°	370	381	406	430	436	104
175°	386	386	390	395	393	37
180°	386	386	386	386	386	

TEST NUMBER: P1025019

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.3	1705.3	1705.3	1705.3	1705.3
2.5°	1710.8	1706.7	1691.6	1705.3	1703.9
5°	1703.9	1698.5	1683.4	1698.5	1695.7
7.5°	1691.6	1686.2	1669.8	1682.1	1680.7
10°	1673.9	1668.4	1650.6	1661.6	1658.8
12.5°	1650.6	1645.2	1626.1	1638.4	1634.3
15°	1622.0	1616.5	1596.0	1604.2	1600.1
17.5°	1589.2	1582.3	1563.2	1568.7	1565.9
20°	1552.3	1545.4	1524.9	1529.0	1526.3
22.5°	1512.6	1503.1	1482.6	1490.8	1485.3
25°	1468.9	1459.3	1440.2	1441.6	1436.1
27.5°	1419.7	1410.2	1392.4	1389.7	1382.8
30°	1370.5	1359.6	1341.8	1336.4	1329.5
32.5°	1318.6	1309.0	1289.9	1283.1	1276.2
35°	1263.9	1254.4	1235.3	1225.7	1218.9
37.5°	1206.6	1198.4	1177.9	1168.3	1158.7
40°	1150.5	1139.6	1119.1	1105.4	1098.6
42.5°	1090.4	1084.9	1061.7	1045.3	1041.2
45°	1031.7	1022.1	1000.2	985.2	981.1
47.5°	970.2	963.3	942.8	926.4	915.5
50°	907.3	901.8	882.7	863.6	855.4
52.5°	845.8	839.0	818.5	802.1	791.2
55°	780.2	776.1	757.0	740.6	732.4
57.5°	718.7	714.6	695.5	679.1	670.9
60°	654.5	647.7	629.9	617.6	610.8
62.5°	591.7	586.2	567.1	556.1	549.3
65°	528.8	522.0	508.3	494.6	487.8
67.5°	464.6	459.1	445.5	431.8	430.4
70°	405.8	396.3	385.3	374.4	370.3
72.5°	343.0	333.4	325.2	317.0	312.9
75°	281.5	274.7	267.8	262.4	261.0
77.5°	221.4	218.6	211.8	210.4	206.3
80°	168.1	164.0	161.2	158.5	157.1
82.5°	116.1	114.8	114.8	113.4	112.0
85°	73.8	73.8	71.1	71.1	69.7
87.5°	35.5	34.2	32.8	32.8	32.8
90°	0.8	6.1	13.7	15.2	15.9
92.5°	10.6	58.4	297.6	98.3	69.1
95°	25.1	79.0	618.7	306.4	185.2
97.5°	41.8	87.3	662.0	625.6	444.9
100°	57.7	98.6	610.4	865.5	696.2
102.5°	72.9	112.4	545.9	1015.8	914.8
105°	88.8	128.7	498.0	1072.4	1068.2
107.5°	106.3	145.4	466.9	1055.3	1141.1
110°	123.7	162.0	452.5	994.6	1142.6



TEST NUMBER: P1025019

CATALOG NUMBER: S124DIP-B1020D810UB40-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	140.5	178.8	445.6	920.2	1097.8
115°	156.4	196.2	444.1	853.4	1025.7
117.5°	173.1	212.6	443.4	801.0	955.1
120°	189.8	228.5	443.4	765.7	897.4
122.5°	205.0	244.0	442.6	742.5	851.8
125°	217.9	258.9	441.9	726.2	818.4
127.5°	230.0	272.5	440.3	710.6	797.2
130°	239.9	285.8	439.6	692.0	778.9
132.5°	249.8	297.2	438.8	670.0	758.4
135°	258.9	308.2	438.1	644.6	731.9
137.5°	268.0	317.7	438.1	617.2	700.7
140°	277.9	326.5	437.3	590.7	666.6
142.5°	288.5	334.4	437.3	566.0	630.1
145°	298.4	341.6	435.8	543.6	597.5
147.5°	309.8	348.5	433.5	525.0	567.1
150°	320.4	354.9	431.2	507.9	542.1
152.5°	330.3	361.0	427.4	493.5	519.3
155°	339.4	366.3	423.6	479.8	500.3
157.5°	348.5	371.2	419.8	466.9	482.8
160°	356.8	375.4	415.3	454.0	466.9
162.5°	364.4	378.8	410.7	441.4	451.7
165°	369.7	381.1	406.2	430.1	436.5
167.5°	375.8	383.0	401.6	420.2	424.4
170°	379.6	384.5	397.1	410.4	413.0
172.5°	383.4	385.6	392.5	401.6	401.6
175°	385.7	386.4	389.5	394.8	393.3
177.5°	387.2	386.4	387.2	389.8	387.2
180°	386.4	386.4	386.4	386.4	386.4

(END OF REPORT)