

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1060740

Luminaire Tested: S124RDR-H1195D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060740
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

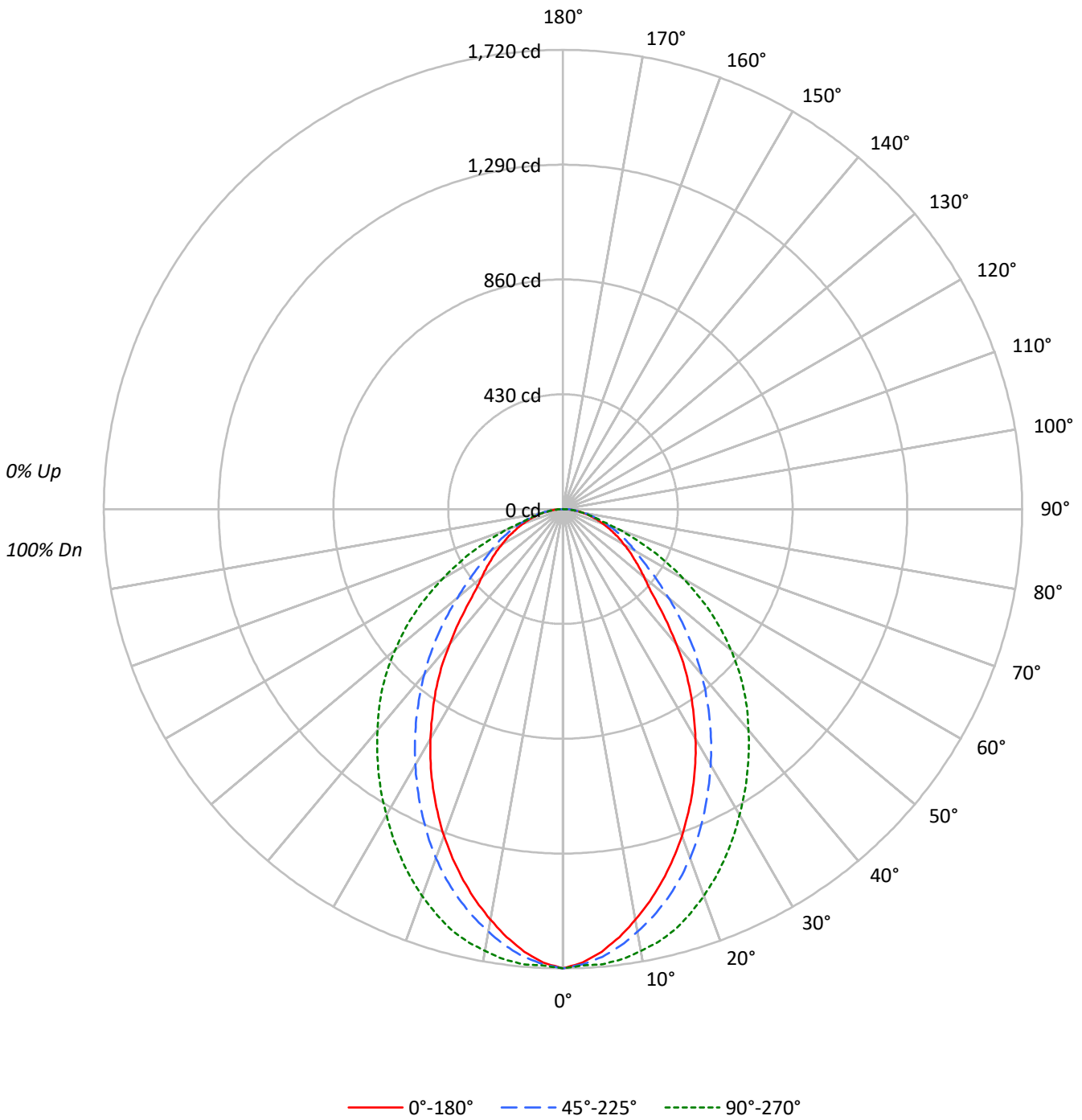
Lumens per Lamp: N/A
Luminaire Lumens: 3156.1 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
Input Voltage (V): 120
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: P1060740

CATALOG NUMBER: S124RDR-H1195D850-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1060740

CATALOG NUMBER: S124RDR-H1195D850-X4F0-XX-UDD-WVL-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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57				57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14811	14811	14811
5°	14381	14552	14789
10°	13655	14055	14693
15°	12837	13461	14520
20°	11939	12749	14130
25°	10947	11902	13667
30°	9868	11003	13152
35°	8737	10064	12657
40°	7426	9085	12148
45°	6080	8027	11677
50°	5322	6893	10991
55°	4890	5942	10168
60°	4535	5348	8966
65°	4248	5025	7506
70°	3986	4600	5635
75°	3746	4202	4102
80°	3471	3848	3471
85°	3162	3764	3004

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11677 cd/sqm



TEST NUMBER: P1060740

CATALOG NUMBER: S124RDR-H1195D850-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.0	5.0
10°-20°	427.7	13.6
20°-30°	584.6	18.5
30°-40°	614.4	19.5
40°-50°	533.2	16.9
50°-60°	402.2	12.7
60°-70°	260.7	8.3
70°-80°	133.8	4.2
80°-90°	40.5	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1171.2	37.1
0°-40°	1785.6	56.6
0°-60°	2721.0	86.2
0°-90°	3156.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3156.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1720	1720	1720	1720	1720	
5°	1664	1686	1684	1697	1711	156
15°	1440	1475	1510	1578	1629	404
25°	1152	1193	1253	1349	1438	528
35°	831	877	957	1085	1204	517
45°	499	546	659	824	959	393
55°	326	335	396	562	677	293
65°	208	213	247	298	368	208
75°	113	126	126	128	123	120
85°	32	40	38	36	30	36
90°	0	0	0	0	0	



TEST NUMBER: P1060740

CATALOG NUMBER: S124RDR-H1195D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1720.0	1720.0	1720.0	1720.0	1720.0
2.5°	1700.2	1721.5	1706.3	1709.3	1710.9
5°	1663.7	1686.5	1683.5	1697.2	1710.9
7.5°	1616.5	1643.9	1650.0	1677.4	1700.2
10°	1561.7	1592.1	1607.4	1651.5	1680.4
12.5°	1503.9	1534.3	1561.7	1618.0	1659.1
15°	1439.9	1474.9	1509.9	1578.4	1628.7
17.5°	1372.9	1409.5	1453.6	1528.2	1587.6
20°	1302.9	1339.5	1391.2	1471.9	1541.9
22.5°	1228.3	1269.4	1324.2	1411.0	1493.2
25°	1152.2	1193.3	1252.7	1348.6	1438.4
27.5°	1073.1	1115.7	1179.6	1286.2	1382.1
30°	992.4	1038.1	1106.6	1219.2	1322.7
32.5°	910.2	958.9	1032.0	1152.2	1264.9
35°	831.1	876.7	957.4	1085.3	1204.0
37.5°	748.9	794.5	881.3	1019.8	1143.1
40°	660.6	710.8	808.2	951.3	1080.7
42.5°	578.4	628.6	733.7	885.9	1021.3
45°	499.3	546.4	659.1	823.5	958.9
47.5°	438.4	471.9	584.5	762.6	892.0
50°	397.3	412.5	514.5	695.6	820.4
52.5°	360.7	372.9	450.5	628.6	750.4
55°	325.7	334.9	395.8	561.7	677.3
57.5°	295.3	299.9	347.0	494.7	598.2
60°	263.3	269.4	310.5	426.2	520.6
62.5°	237.5	240.5	278.5	360.7	442.9
65°	208.5	213.1	246.6	298.3	368.4
67.5°	182.7	190.3	213.1	243.5	290.7
70°	158.3	169.0	182.7	197.9	223.8
72.5°	135.5	147.6	155.3	161.3	156.8
75°	112.6	126.3	126.3	127.9	123.3
77.5°	91.3	103.5	102.0	100.5	94.4
80°	70.0	80.7	77.6	76.1	70.0
82.5°	51.8	59.4	56.3	54.8	47.2
85°	32.0	39.6	38.1	36.5	30.4
87.5°	15.2	22.8	21.3	19.8	13.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060740
 CATALOG NUMBER: S124RDR-H1195D850-X4F0-XX-UDD-WVL-W

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.87	17.36	16.23	17.67	17.98	19.61	21.09	19.97	21.41	21.72
	3H	17.54	18.87	17.91	19.20	19.56	20.73	22.06	21.11	22.39	22.75
	4H	18.20	19.45	18.60	19.80	20.18	21.03	22.28	21.43	22.63	23.00
	6H	18.71	19.86	19.12	20.23	20.62	21.23	22.38	21.64	22.75	23.14
	8H	18.88	19.98	19.31	20.37	20.77	21.28	22.38	21.71	22.77	23.17
	12H	19.00	20.05	19.44	20.44	20.87	21.32	22.37	21.75	22.75	23.18
4H	2H	16.66	17.91	17.06	18.26	18.64	19.77	21.02	20.17	21.37	21.75
	3H	18.53	19.57	18.94	19.97	20.37	21.10	22.14	21.51	22.54	22.94
	4H	19.34	20.27	19.77	20.68	21.12	21.52	22.45	21.95	22.87	23.31
	6H	19.98	20.79	20.44	21.23	21.69	21.84	22.65	22.30	23.09	23.55
	8H	20.20	20.96	20.67	21.40	21.87	21.93	22.69	22.40	23.14	23.60
	12H	20.37	21.04	20.85	21.52	21.99	22.01	22.68	22.49	23.16	23.63
8H	4H	19.68	20.44	20.15	20.89	21.35	21.65	22.41	22.12	22.85	23.32
	6H	20.47	21.10	20.97	21.59	22.07	22.07	22.70	22.57	23.19	23.67
	8H	20.79	21.35	21.31	21.86	22.35	22.23	22.79	22.74	23.30	23.79
	12H	21.06	21.55	21.57	22.05	22.61	22.37	22.86	22.88	23.36	23.92
12H	4H	19.71	20.39	20.20	20.87	21.34	21.66	22.33	22.14	22.81	23.28
	6H	20.53	21.10	21.05	21.61	22.10	22.09	22.65	22.61	23.16	23.65
	8H	20.92	21.42	21.43	21.91	22.48	22.30	22.80	22.81	23.29	23.86