

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: P1060944

Luminaire Tested: S124RDR-H575D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060944
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D950-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

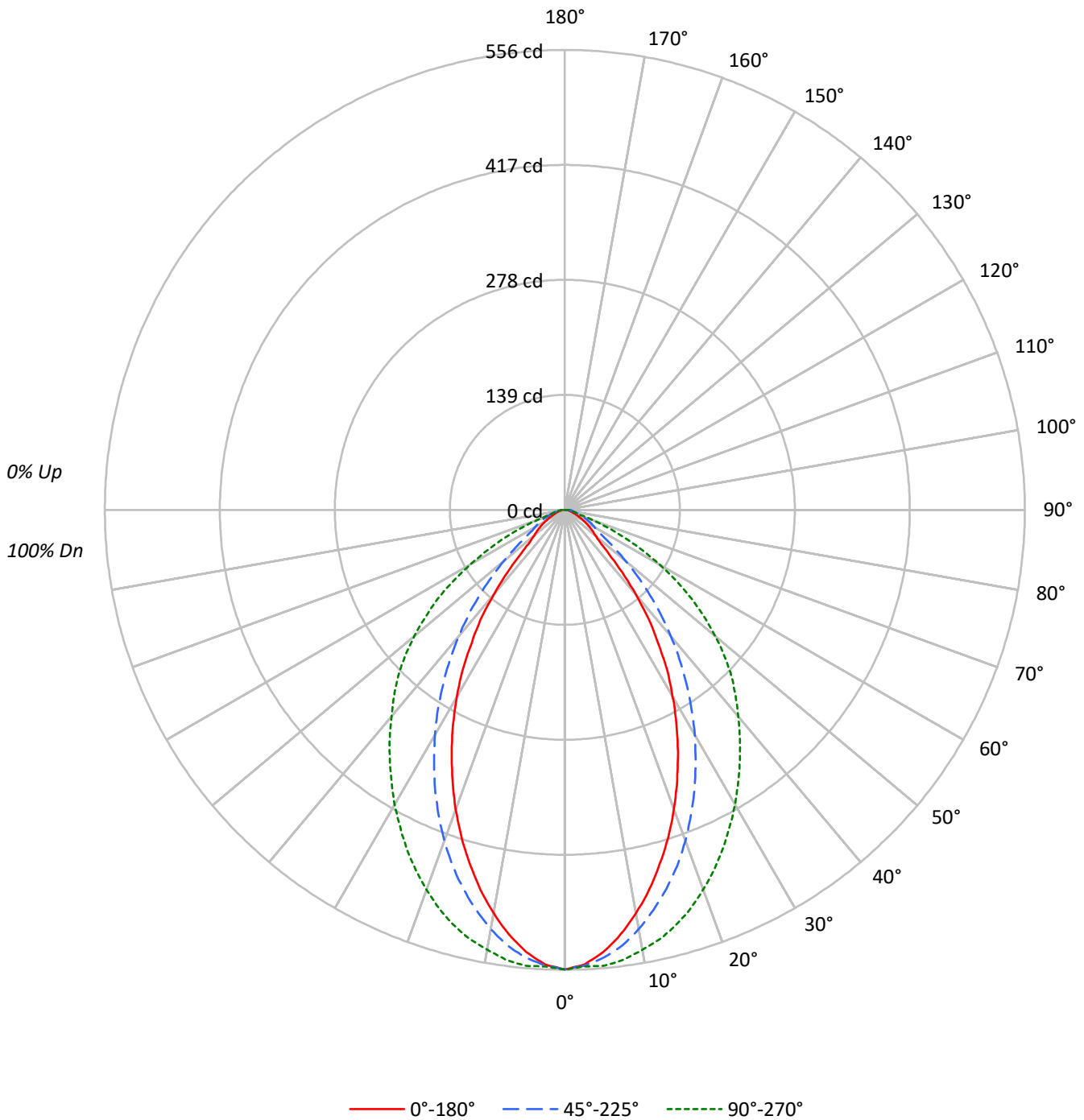
Lumens per Lamp: N/A
Luminaire Lumens: 786.5 lumens
Efficiency: N/A
Efficacy: 45.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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: P1060944

CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1060944

CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4784	4784	4784
5°	4637	4695	4782
10°	4332	4501	4723
15°	3952	4228	4632
20°	3533	3903	4477
25°	3074	3528	4295
30°	2593	3123	4093
35°	2063	2689	3877
40°	1501	2240	3663
45°	907	1769	3471
50°	648	1281	3178
55°	549	866	2806
60°	450	706	2266
65°	355	632	1632
70°	297	531	859
75°	269	496	433
80°	278	491	431
85°	366	741	494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3471 cd/sqm



TEST NUMBER: P1060944

CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.2	6.5
10°-20°	134.1	17.0
20°-30°	173.9	22.1
30°-40°	167.4	21.3
40°-50°	124.5	15.8
50°-60°	76.6	9.7
60°-70°	37.6	4.8
70°-80°	14.7	1.9
80°-90°	6.7	0.9
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°	359.1	45.7
0°-40°	526.4	66.9
0°-60°	727.5	92.5
0°-90°	786.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	786.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	536	544	543	548	553	50
15°	443	458	474	503	520	124
25°	324	341	371	418	452	148
35°	196	215	256	320	369	123
45°	74	92	145	224	285	62
55°	37	38	58	132	187	33
65°	17	19	31	50	80	18
75°	8	14	15	14	13	9
85°	4	7	8	8	5	4
90°	0	0	0	0	0	



TEST NUMBER: P1060944

CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	555.6	555.6	555.6	555.6	555.6
2.5°	550.1	556.3	551.3	551.9	552.5
5°	536.4	544.5	543.2	548.2	553.2
7.5°	517.8	527.1	531.4	541.4	548.2
10°	495.4	506.0	514.7	530.8	540.1
12.5°	470.6	483.0	495.4	517.2	531.4
15°	443.3	457.6	474.3	502.9	519.6
17.5°	415.3	429.6	451.3	484.3	505.4
20°	385.5	401.1	425.9	462.5	488.6
22.5°	354.5	371.3	398.6	440.2	471.2
25°	323.5	340.8	371.3	417.8	452.0
27.5°	292.4	309.2	342.1	394.2	431.5
30°	260.8	278.1	314.1	368.8	411.6
32.5°	230.3	246.5	285.0	344.6	389.9
35°	196.2	214.8	255.8	319.7	368.8
37.5°	167.0	183.8	227.8	294.9	347.7
40°	133.5	152.1	199.3	270.7	325.9
42.5°	102.4	121.1	172.0	246.5	305.5
45°	74.5	92.5	145.3	224.1	285.0
47.5°	56.5	67.1	119.2	202.4	262.0
50°	48.4	51.5	95.6	178.8	237.2
52.5°	42.8	44.1	74.5	155.2	212.3
55°	36.6	37.9	57.7	131.6	186.9
57.5°	31.0	31.7	46.6	109.3	159.6
60°	26.1	26.7	41.0	87.5	131.6
62.5°	21.7	22.4	36.6	67.7	104.9
65°	17.4	18.6	31.0	49.7	80.1
67.5°	14.3	16.8	26.1	34.8	55.9
70°	11.8	16.1	21.1	24.2	34.1
72.5°	9.9	14.9	18.0	17.4	16.8
75°	8.1	14.3	14.9	13.7	13.0
77.5°	6.8	12.4	12.4	11.2	10.6
80°	5.6	9.9	9.9	9.9	8.7
82.5°	5.0	8.1	8.7	8.7	6.8
85°	3.7	6.8	7.5	7.5	5.0
87.5°	2.5	6.2	6.8	6.2	3.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1060944
 CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-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	5.23	6.57	5.59	6.88	7.20	14.39	15.74	14.76	16.05	16.36
	3H	6.34	7.53	6.72	7.86	8.22	14.90	16.09	15.28	16.42	16.78
	4H	6.86	7.97	7.26	8.32	8.70	14.92	16.03	15.32	16.38	16.76
	6H	7.29	8.31	7.70	8.68	9.07	14.93	15.95	15.35	16.32	16.72
	8H	7.48	8.45	7.91	8.84	9.24	14.93	15.90	15.36	16.29	16.70
	12H	7.66	8.59	8.09	8.97	9.40	14.94	15.86	15.37	16.24	16.67
4H	2H	6.37	7.48	6.77	7.83	8.21	14.29	15.40	14.69	15.75	16.13
	3H	7.71	8.62	8.12	9.02	9.43	14.87	15.78	15.29	16.19	16.59
	4H	8.44	9.26	8.88	9.68	10.12	14.93	15.75	15.37	16.17	16.61
	6H	9.05	9.75	9.51	10.20	10.67	15.01	15.71	15.47	16.16	16.62
	8H	9.30	9.95	9.76	10.40	10.87	15.04	15.69	15.51	16.14	16.61
	12H	9.53	10.11	10.02	10.60	11.07	15.08	15.66	15.57	16.14	16.62
8H	4H	8.91	9.57	9.38	10.01	10.49	14.89	15.55	15.36	15.99	16.46
	6H	9.76	10.30	10.26	10.79	11.27	15.02	15.56	15.52	16.05	16.53
	8H	10.17	10.65	10.69	11.16	11.66	15.10	15.59	15.62	16.10	16.59
	12H	10.59	11.02	11.10	11.51	12.08	15.22	15.65	15.74	16.15	16.72
12H	4H	8.96	9.55	9.45	10.03	10.50	14.86	15.44	15.35	15.93	16.40
	6H	9.89	10.37	10.41	10.89	11.38	15.00	15.48	15.52	16.00	16.49
	8H	10.42	10.84	10.93	11.34	11.91	15.13	15.56	15.65	16.06	16.63