

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: P1060700

Luminaire Tested: S124RDR-H1020D950-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060700
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D950-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER 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

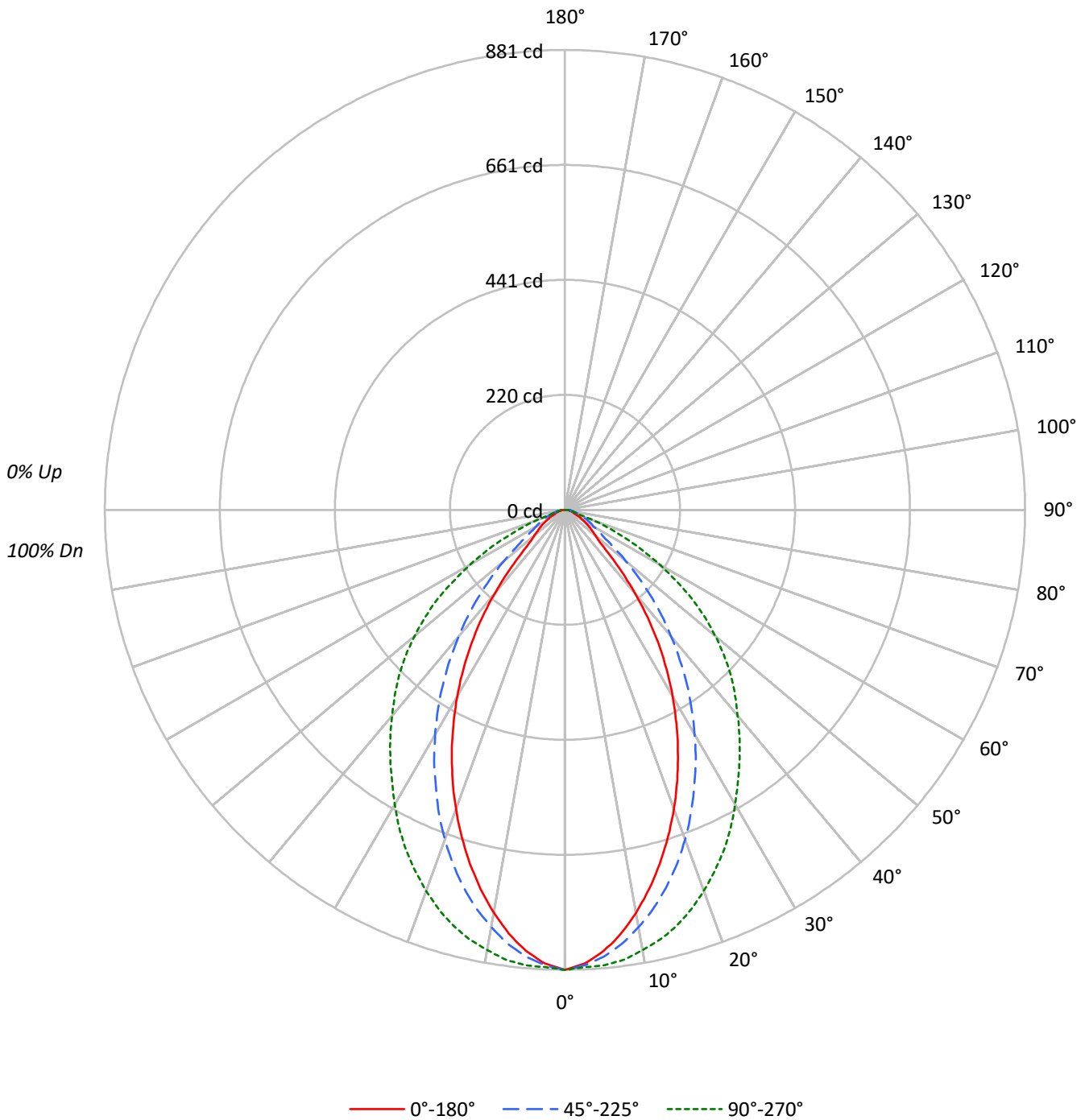
Lumens per Lamp: N/A
Luminaire Lumens: 1239.1 lumens
Efficiency: N/A
Efficacy: 39.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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

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Luminous Intensity Polar Plot





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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	105	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	67	75	70	66	73	68	65	63			63	
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57			57	
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51			51	
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43			43	
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7588	7588	7588
5°	7336	7423	7569
10°	6852	7097	7489
15°	6256	6676	7356
20°	5589	6164	7119
25°	4868	5560	6838
30°	4103	4938	6477
35°	3277	4278	6129
40°	2356	3553	5785
45°	1420	2798	5475
50°	1021	2027	5032
55°	859	1363	4460
60°	696	1082	3591
65°	548	982	2582
70°	481	818	1382
75°	449	745	672
80°	446	779	610
85°	662	1107	771

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5475 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	6.5
10°-20°	211.9	17.1
20°-30°	275.0	22.2
30°-40°	264.4	21.3
40°-50°	196.1	15.8
50°-60°	120.1	9.7
60°-70°	58.4	4.7
70°-80°	22.2	1.8
80°-90°	10.0	0.8
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°	567.9	45.8
0°-40°	832.2	67.2
0°-60°	1148.5	92.7
0°-90°	1239.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1239.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	881	881	881	881	881	
5°	849	861	859	867	876	79
15°	702	722	749	794	825	196
25°	512	538	585	660	720	234
35°	312	340	407	503	583	193
45°	117	146	230	351	450	97
55°	57	59	91	205	297	51
65°	27	29	48	76	127	28
75°	14	21	22	20	20	14
85°	7	11	11	10	8	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	881.2	881.2	881.2	881.2	881.2
2.5°	870.0	880.1	873.3	875.6	876.7
5°	848.7	861.0	858.8	866.6	875.6
7.5°	819.5	834.1	838.6	854.3	868.8
10°	783.6	801.6	811.7	837.5	856.5
12.5°	744.4	763.5	782.5	817.3	843.1
15°	701.8	722.0	748.9	793.7	825.1
17.5°	657.0	679.4	711.9	765.7	802.7
20°	609.9	633.4	672.7	732.1	776.9
22.5°	561.7	586.3	630.1	696.2	748.9
25°	512.3	538.1	585.2	660.3	719.7
27.5°	461.9	488.8	542.6	622.2	687.2
30°	412.6	438.3	496.6	583.0	651.4
32.5°	362.1	389.0	451.8	542.6	616.6
35°	311.7	339.7	407.0	503.4	583.0
37.5°	260.1	290.4	361.0	465.3	549.3
40°	209.6	238.8	316.1	426.0	514.6
42.5°	160.3	191.7	273.5	386.8	482.1
45°	116.6	145.7	229.8	350.9	449.6
47.5°	87.4	105.4	189.5	317.3	413.7
50°	76.2	79.6	151.3	280.3	375.6
52.5°	66.1	68.4	117.7	239.9	337.4
55°	57.2	59.4	90.8	205.2	297.1
57.5°	48.2	50.4	72.9	171.5	251.1
60°	40.4	42.6	62.8	136.8	208.5
62.5°	33.6	34.8	56.1	104.3	167.0
65°	26.9	29.1	48.2	76.2	126.7
67.5°	22.4	24.7	39.2	52.7	88.6
70°	19.1	24.7	32.5	37.0	54.9
72.5°	15.7	22.4	26.9	25.8	25.8
75°	13.5	21.3	22.4	20.2	20.2
77.5°	11.2	19.1	17.9	16.8	15.7
80°	9.0	15.7	15.7	13.5	12.3
82.5°	7.8	12.3	12.3	12.3	10.1
85°	6.7	11.2	11.2	10.1	7.8
87.5°	4.5	9.0	10.1	9.0	5.6
90°	0.0	0.0	0.0	0.0	0.0



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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	6.85	8.19	7.21	8.50	8.82	15.95	17.29	16.32	17.60	17.92
	3H	7.90	9.08	8.28	9.41	9.78	16.45	17.64	16.83	17.97	18.34
	4H	8.41	9.52	8.82	9.87	10.25	16.47	17.58	16.87	17.93	18.31
	6H	8.86	9.88	9.28	10.25	10.65	16.47	17.48	16.88	17.85	18.25
	8H	9.05	10.02	9.48	10.41	10.81	16.46	17.43	16.89	17.82	18.22
	12H	9.27	10.19	9.70	10.57	11.00	16.46	17.38	16.90	17.77	18.20
4H	2H	7.94	9.05	8.35	9.40	9.78	15.84	16.95	16.24	17.30	17.68
	3H	9.22	10.12	9.63	10.53	10.93	16.42	17.33	16.83	17.73	18.13
	4H	9.92	10.73	10.36	11.15	11.60	16.47	17.28	16.90	17.70	18.14
	6H	10.56	11.26	11.02	11.70	12.17	16.52	17.22	16.98	17.67	18.13
	8H	10.80	11.45	11.27	11.90	12.37	16.54	17.19	17.01	17.64	18.11
	12H	11.07	11.65	11.56	12.13	12.61	16.57	17.15	17.06	17.63	18.10
8H	4H	10.35	11.00	10.82	11.45	11.92	16.42	17.07	16.89	17.52	17.99
	6H	11.23	11.76	11.73	12.26	12.74	16.51	17.05	17.01	17.54	18.02
	8H	11.63	12.11	12.15	12.63	13.12	16.57	17.05	17.09	17.57	18.06
	12H	12.11	12.53	12.62	13.03	13.60	16.67	17.10	17.18	17.59	18.16
12H	4H	10.39	10.97	10.88	11.45	11.93	16.39	16.97	16.87	17.45	17.92
	6H	11.34	11.82	11.86	12.34	12.83	16.49	16.97	17.01	17.49	17.98
	8H	11.86	12.28	12.37	12.78	13.35	16.59	17.02	17.11	17.51	18.09