

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: P1060661

Luminaire Tested: S124RDR-H1020D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060661
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D927-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

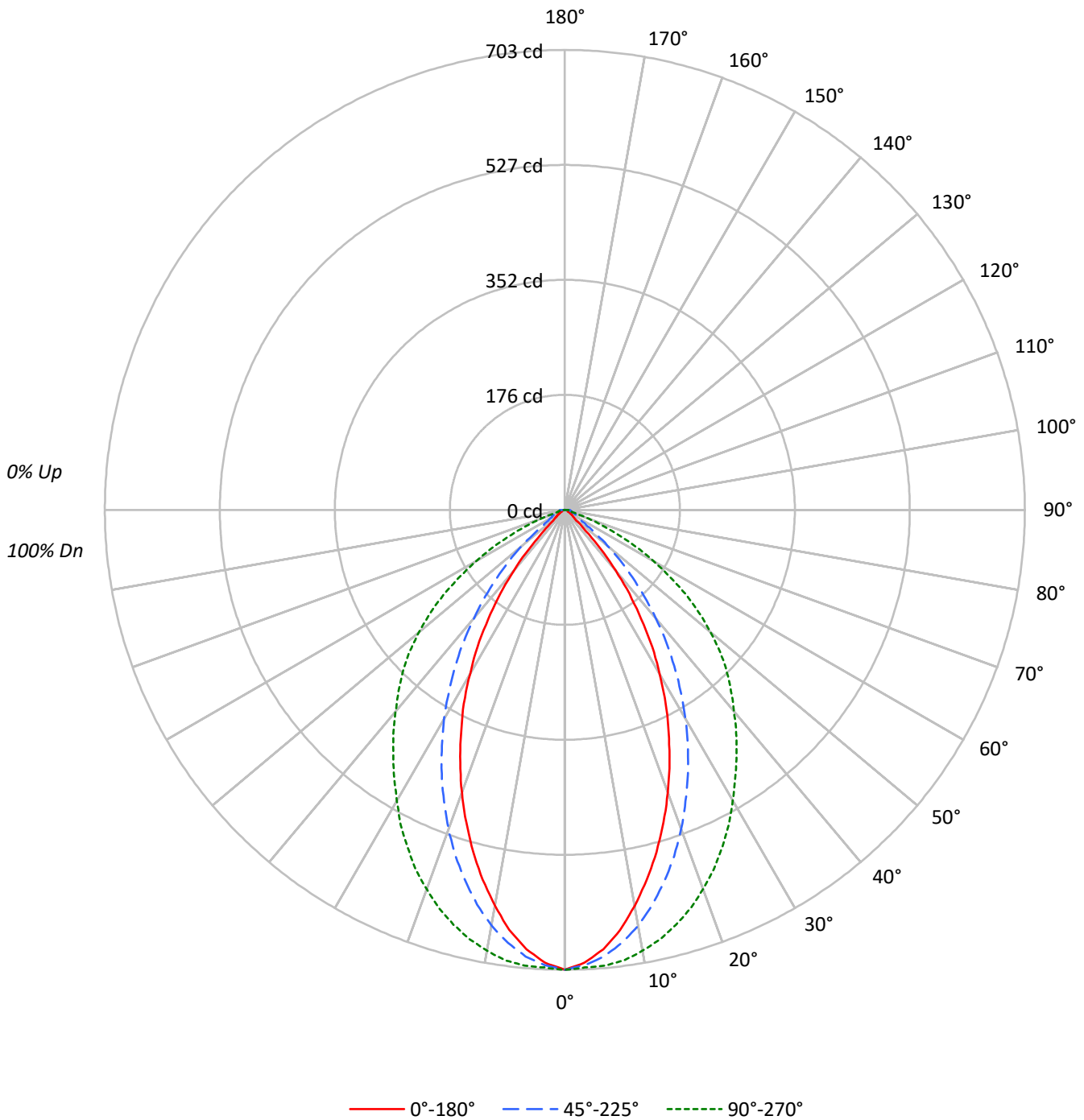
Lumens per Lamp: N/A
Luminaire Lumens: 882.3 lumens
Efficiency: N/A
Efficacy: 28.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1060661

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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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	88	85	83	81				81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				65
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6054	6054	6054
5°	5827	5924	6045
10°	5373	5642	5984
15°	4823	5238	5852
20°	4215	4761	5657
25°	3565	4229	5405
30°	2880	3666	5102
35°	2143	3063	4806
40°	1360	2428	4521
45°	544	1780	4264
50°	237	1135	3892
55°	182	587	3397
60°	127	401	2694
65°	96	399	1840
70°	93	352	843
75°	123	373	339
80°	183	417	367
85°	366	731	553

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4264 cd/sqm

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CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.3	7.3
10°-20°	166.0	18.8
20°-30°	209.6	23.8
30°-40°	192.5	21.8
40°-50°	131.3	14.9
50°-60°	71.2	8.1
60°-70°	30.2	3.4
70°-80°	10.4	1.2
80°-90°	6.6	0.7
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°	440.0	49.9
0°-40°	632.5	71.7
0°-60°	835.0	94.6
0°-90°	882.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	882.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	674	684	685	691	699	62
15°	541	559	588	629	656	151
25°	375	400	445	514	569	172
35°	204	231	291	383	457	127
45°	45	72	146	259	350	41
55°	12	13	39	142	226	11
65°	5	6	20	45	90	5
75°	4	10	11	10	10	4
85°	4	7	7	7	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.0	703.0	703.0	703.0	703.0
2.5°	692.8	701.1	696.5	698.3	700.2
5°	674.1	684.4	685.3	690.9	699.3
7.5°	648.1	660.2	667.6	681.6	694.6
10°	614.5	629.4	645.3	667.6	684.4
12.5°	579.2	595.0	618.3	649.9	672.3
15°	541.0	558.7	587.5	629.4	656.4
17.5°	500.9	520.5	555.0	604.3	638.8
20°	460.0	481.4	519.6	575.4	617.3
22.5°	418.1	440.4	482.3	545.6	595.0
25°	375.2	399.5	445.1	514.0	568.9
27.5°	334.3	356.6	406.9	482.3	542.8
30°	289.6	314.7	368.7	449.7	513.1
32.5°	248.6	272.8	329.6	416.2	485.1
35°	203.9	230.9	291.4	382.7	457.2
37.5°	162.0	188.1	254.2	351.0	430.2
40°	121.0	148.0	216.0	319.4	402.2
42.5°	81.0	109.9	179.7	286.8	376.2
45°	44.7	71.7	146.2	258.9	350.1
47.5°	23.3	39.1	114.5	230.9	322.2
50°	17.7	21.4	84.7	200.2	290.5
52.5°	14.9	15.8	57.7	169.5	258.9
55°	12.1	13.0	39.1	142.5	226.3
57.5°	9.3	10.2	27.9	116.4	189.9
60°	7.4	8.4	23.3	89.4	156.4
62.5°	5.6	6.5	22.3	66.1	122.9
65°	4.7	5.6	19.6	44.7	90.3
67.5°	3.7	5.6	16.8	28.9	60.5
70°	3.7	7.4	14.0	18.6	33.5
72.5°	3.7	8.4	12.1	12.1	12.1
75°	3.7	10.2	11.2	10.2	10.2
77.5°	3.7	9.3	9.3	9.3	9.3
80°	3.7	8.4	8.4	8.4	7.4
82.5°	3.7	7.4	8.4	8.4	6.5
85°	3.7	7.4	7.4	7.4	5.6
87.5°	2.8	7.4	7.4	7.4	3.7
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	0.00	0.00	0.00	0.00	0.00	14.70	15.97	15.06	16.29	16.60
	3H	0.00	0.00	0.00	0.00	0.01	15.05	16.18	15.43	16.51	16.88
	4H	0.00	0.62	0.00	0.97	1.36	15.02	16.07	15.42	16.42	16.80
	6H	0.94	1.90	1.35	2.27	2.67	14.99	15.96	15.41	16.33	16.72
	8H	1.62	2.53	2.05	2.92	3.32	14.98	15.89	15.41	16.29	16.69
	12H	2.42	3.29	2.85	3.67	4.10	14.98	15.85	15.41	16.24	16.67
4H	2H	0.40	1.45	0.80	1.80	2.18	14.50	15.55	14.90	15.90	16.29
	3H	1.81	2.67	2.23	3.07	3.48	14.90	15.75	15.31	16.16	16.56
	4H	3.26	4.02	3.69	4.44	4.88	14.88	15.64	15.31	16.06	16.50
	6H	4.50	5.16	4.97	5.61	6.08	14.89	15.55	15.36	16.00	16.47
	8H	5.07	5.68	5.54	6.13	6.60	14.90	15.52	15.37	15.97	16.44
	12H	5.74	6.28	6.22	6.76	7.24	14.94	15.48	15.43	15.97	16.44
8H	4H	4.33	4.95	4.80	5.40	5.87	14.78	15.39	15.25	15.84	16.31
	6H	5.95	6.45	6.45	6.95	7.43	14.83	15.33	15.33	15.83	16.31
	8H	6.78	7.23	7.30	7.74	8.24	14.88	15.34	15.41	15.85	16.34
	12H	7.73	8.13	8.25	8.63	9.20	15.00	15.40	15.51	15.89	16.47
12H	4H	4.52	5.07	5.01	5.55	6.03	14.74	15.28	15.22	15.76	16.24
	6H	6.30	6.75	6.82	7.26	7.76	14.79	15.25	15.32	15.76	16.26
	8H	7.31	7.71	7.83	8.20	8.78	14.90	15.30	15.41	15.79	16.37