

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: P1060934

Luminaire Tested: S124RDR-H575D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060934
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-H575D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

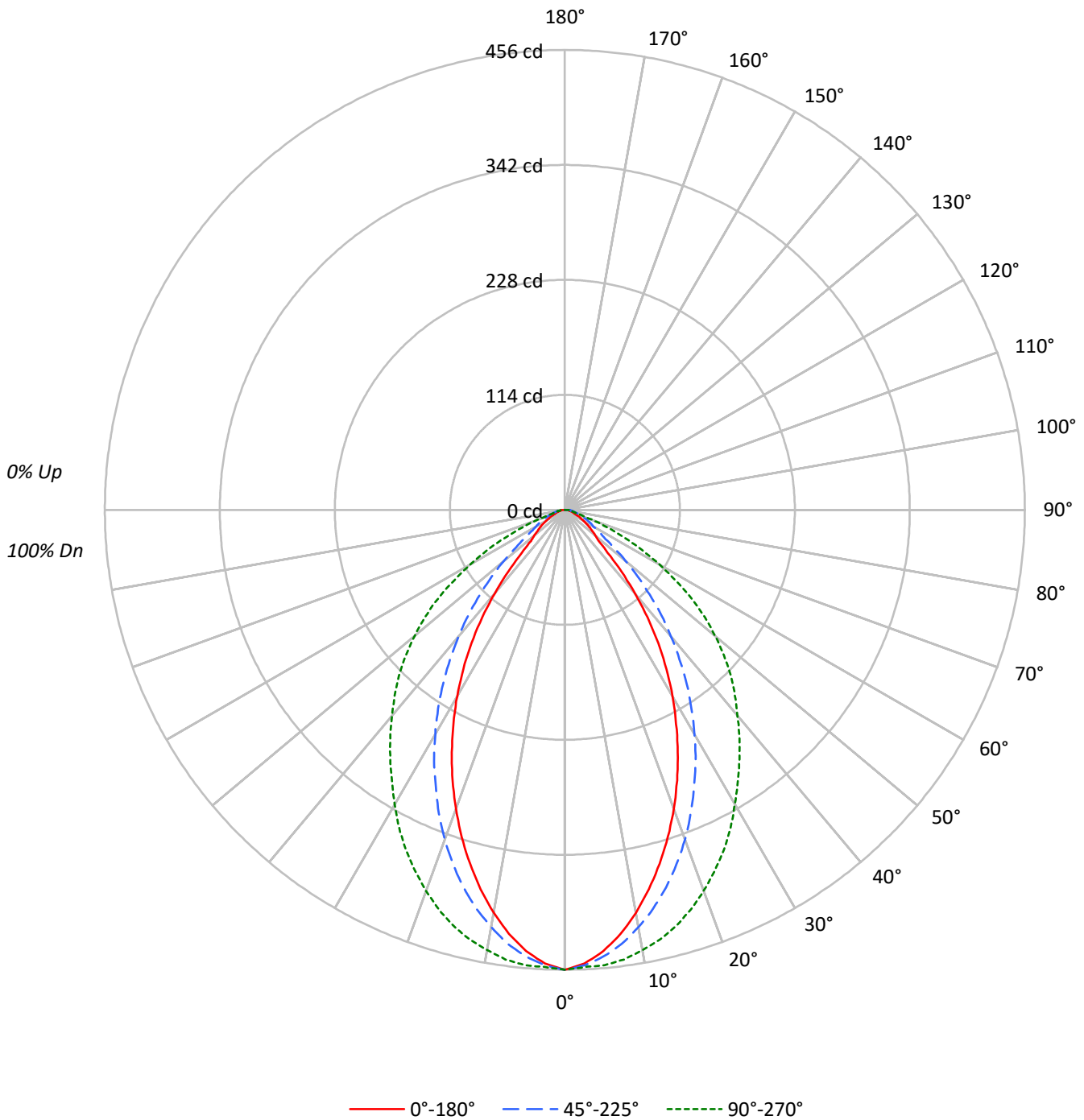
Lumens per Lamp: N/A
Luminaire Lumens: 641.2 lumens
Efficiency: N/A
Efficacy: 36.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	73	67	77	71	67	75	70	66	73	68	65	63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3927	3927	3927
5°	3796	3841	3917
10°	3547	3673	3876
15°	3238	3455	3807
20°	2892	3190	3685
25°	2519	2878	3539
30°	2123	2555	3352
35°	1696	2214	3172
40°	1220	1839	2993
45°	734	1448	2834
50°	529	1049	2604
55°	444	706	2308
60°	360	560	1858
65°	283	507	1337
70°	249	423	715
75°	233	386	346
80°	228	402	317
85°	346	573	405

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2834 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.9	6.5
10°-20°	109.7	17.1
20°-30°	142.3	22.2
30°-40°	136.8	21.3
40°-50°	101.5	15.8
50°-60°	62.2	9.7
60°-70°	30.2	4.7
70°-80°	11.5	1.8
80°-90°	5.2	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°	293.9	45.8
0°-40°	430.7	67.2
0°-60°	594.4	92.7
0°-90°	641.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	641.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	439	446	444	448	453	41
15°	363	374	388	411	427	101
25°	265	278	303	342	372	121
35°	161	176	211	260	302	100
45°	60	75	119	182	233	50
55°	30	31	47	106	154	27
65°	14	15	25	40	66	14
75°	7	11	12	10	10	7
85°	4	6	6	5	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	456.0	456.0	456.0	456.0	456.0
2.5°	450.2	455.4	452.0	453.1	453.7
5°	439.2	445.6	444.4	448.5	453.1
7.5°	424.1	431.7	434.0	442.1	449.6
10°	405.6	414.8	420.1	433.4	443.3
12.5°	385.2	395.1	405.0	423.0	436.3
15°	363.2	373.6	387.6	410.8	427.0
17.5°	340.0	351.6	368.4	396.3	415.4
20°	315.6	327.8	348.1	378.9	402.1
22.5°	290.7	303.4	326.1	360.3	387.6
25°	265.1	278.5	302.9	341.7	372.5
27.5°	239.0	253.0	280.8	322.0	355.7
30°	213.5	226.9	257.0	301.7	337.1
32.5°	187.4	201.3	233.8	280.8	319.1
35°	161.3	175.8	210.6	260.5	301.7
37.5°	134.6	150.3	186.8	240.8	284.3
40°	108.5	123.6	163.6	220.5	266.3
42.5°	83.0	99.2	141.6	200.2	249.5
45°	60.3	75.4	118.9	181.6	232.7
47.5°	45.3	54.5	98.1	164.2	214.1
50°	39.5	41.2	78.3	145.0	194.4
52.5°	34.2	35.4	60.9	124.2	174.6
55°	29.6	30.7	47.0	106.2	153.7
57.5°	24.9	26.1	37.7	88.8	130.0
60°	20.9	22.0	32.5	70.8	107.9
62.5°	17.4	18.0	29.0	54.0	86.4
65°	13.9	15.1	24.9	39.5	65.6
67.5°	11.6	12.8	20.3	27.3	45.8
70°	9.9	12.8	16.8	19.1	28.4
72.5°	8.1	11.6	13.9	13.3	13.3
75°	7.0	11.0	11.6	10.4	10.4
77.5°	5.8	9.9	9.3	8.7	8.1
80°	4.6	8.1	8.1	7.0	6.4
82.5°	4.1	6.4	6.4	6.4	5.2
85°	3.5	5.8	5.8	5.2	4.1
87.5°	2.3	4.6	5.2	4.6	2.9
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	4.56	5.90	4.93	6.21	6.53	13.67	15.01	14.03	15.32	15.63
	3H	5.61	6.80	5.99	7.13	7.49	14.17	15.36	14.55	15.69	16.05
	4H	6.13	7.23	6.53	7.58	7.97	14.18	15.29	14.58	15.64	16.02
	6H	6.58	7.59	6.99	7.96	8.36	14.18	15.20	14.59	15.57	15.96
	8H	6.77	7.73	7.20	8.12	8.53	14.18	15.14	14.61	15.53	15.94
	12H	6.98	7.91	7.42	8.29	8.72	14.18	15.10	14.61	15.48	15.91
4H	2H	5.65	6.76	6.06	7.11	7.49	13.56	14.66	13.96	15.01	15.40
	3H	6.93	7.83	7.34	8.24	8.64	14.13	15.04	14.55	15.44	15.84
	4H	7.63	8.44	8.07	8.86	9.31	14.18	14.99	14.61	15.41	15.85
	6H	8.26	8.96	8.73	9.41	9.88	14.23	14.93	14.69	15.38	15.84
	8H	8.51	9.16	8.98	9.61	10.08	14.25	14.90	14.72	15.35	15.82
	12H	8.79	9.37	9.28	9.85	10.32	14.28	14.86	14.77	15.34	15.82
8H	4H	8.06	8.71	8.53	9.16	9.63	14.13	14.78	14.60	15.23	15.70
	6H	8.94	9.47	9.44	9.97	10.45	14.22	14.76	14.72	15.25	15.73
	8H	9.35	9.83	9.87	10.34	10.83	14.28	14.76	14.80	15.28	15.77
	12H	9.83	10.25	10.34	10.75	11.32	14.38	14.81	14.90	15.30	15.87
12H	4H	8.10	8.68	8.59	9.16	9.64	14.10	14.68	14.59	15.16	15.63
	6H	9.05	9.53	9.57	10.05	10.54	14.20	14.68	14.72	15.20	15.69
	8H	9.57	9.99	10.08	10.49	11.06	14.31	14.73	14.82	15.23	15.80