

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: P1060940

Luminaire Tested: S124RDR-H575D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060940
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-H575D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

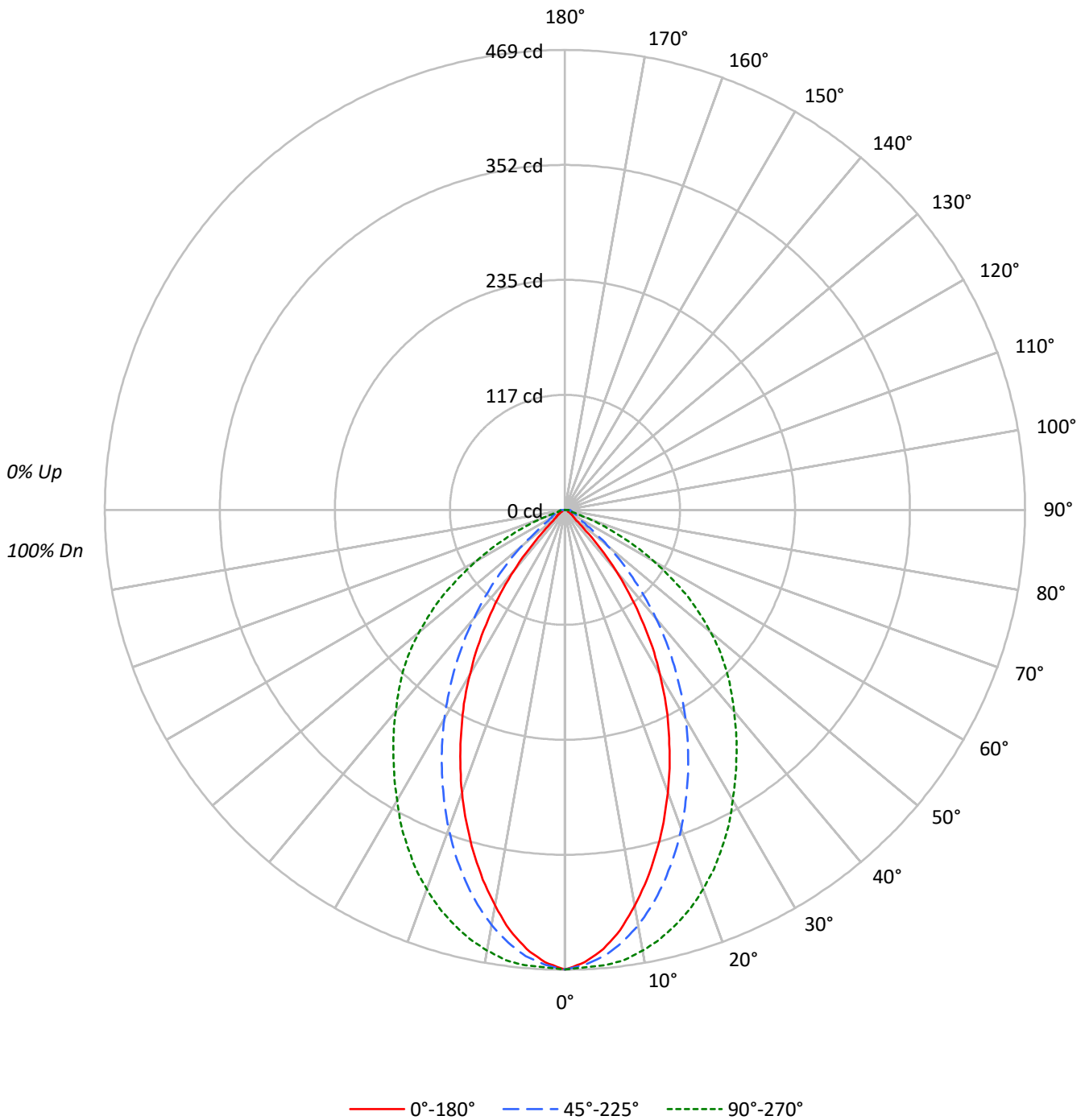
Lumens per Lamp: N/A
Luminaire Lumens: 588.3 lumens
Efficiency: N/A
Efficacy: 33.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4036	4036	4036
5°	3885	3949	4031
10°	3583	3762	3990
15°	3216	3493	3902
20°	2811	3174	3772
25°	2377	2820	3604
30°	1920	2445	3402
35°	1430	2043	3204
40°	907	1619	3015
45°	363	1187	2842
50°	158	757	2595
55°	122	392	2265
60°	86	267	1796
65°	63	265	1227
70°	63	234	564
75°	83	250	226
80°	124	278	248
85°	247	494	366

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2842 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	7.3
10°-20°	110.7	18.8
20°-30°	139.8	23.8
30°-40°	128.4	21.8
40°-50°	87.5	14.9
50°-60°	47.5	8.1
60°-70°	20.1	3.4
70°-80°	7.0	1.2
80°-90°	4.4	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°	293.4	49.9
0°-40°	421.8	71.7
0°-60°	556.8	94.6
0°-90°	588.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	588.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	469	469	469	469	469	
5°	450	456	457	461	466	42
15°	361	372	392	420	438	100
25°	250	266	297	343	379	114
35°	136	154	194	255	305	84
45°	30	48	98	173	233	27
55°	8	9	26	95	151	7
65°	3	4	13	30	60	3
75°	2	7	8	7	7	3
85°	2	5	5	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	468.7	468.7	468.7	468.7	468.7
2.5°	461.9	467.5	464.4	465.6	466.9
5°	449.5	456.3	456.9	460.7	466.3
7.5°	432.1	440.2	445.1	454.5	463.2
10°	409.8	419.7	430.2	445.1	456.3
12.5°	386.2	396.7	412.2	433.4	448.3
15°	360.7	372.5	391.8	419.7	437.7
17.5°	334.0	347.1	370.0	402.9	425.9
20°	306.7	321.0	346.4	383.7	411.6
22.5°	278.8	293.7	321.6	363.8	396.7
25°	250.2	266.3	296.8	342.7	379.3
27.5°	222.9	237.8	271.3	321.6	362.0
30°	193.1	209.8	245.9	299.9	342.1
32.5°	165.8	181.9	219.8	277.5	323.5
35°	136.0	154.0	194.3	255.2	304.8
37.5°	108.0	125.4	169.5	234.1	286.8
40°	80.7	98.7	144.0	213.0	268.2
42.5°	54.0	73.3	119.8	191.2	250.8
45°	29.8	47.8	97.5	172.6	233.4
47.5°	15.5	26.1	76.4	154.0	214.8
50°	11.8	14.3	56.5	133.5	193.7
52.5°	9.9	10.6	38.5	113.0	172.6
55°	8.1	8.7	26.1	95.0	150.9
57.5°	6.2	6.8	18.6	77.6	126.7
60°	5.0	5.6	15.5	59.6	104.3
62.5°	3.7	4.3	14.9	44.1	82.0
65°	3.1	3.7	13.0	29.8	60.2
67.5°	2.5	3.7	11.2	19.2	40.4
70°	2.5	5.0	9.3	12.4	22.4
72.5°	2.5	5.6	8.1	8.1	8.1
75°	2.5	6.8	7.5	6.8	6.8
77.5°	2.5	6.2	6.2	6.2	6.2
80°	2.5	5.6	5.6	5.6	5.0
82.5°	2.5	5.0	5.6	5.6	4.3
85°	2.5	5.0	5.0	5.0	3.7
87.5°	1.9	5.0	5.0	5.0	2.5
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	13.29	14.57	13.66	14.88	15.19
	3H	0.00	0.00	0.00	0.00	0.00	13.65	14.77	14.03	15.10	15.47
	4H	0.00	0.00	0.00	0.00	0.00	13.61	14.66	14.02	15.01	15.40
	6H	0.00	0.52	0.00	0.90	1.29	13.59	14.55	14.00	14.92	15.32
	8H	0.25	1.16	0.68	1.55	1.96	13.58	14.49	14.01	14.88	15.28
	12H	1.06	1.93	1.49	2.31	2.74	13.57	14.44	14.01	14.83	15.26
4H	2H	0.00	0.02	0.00	0.37	0.75	13.09	14.14	13.50	14.49	14.88
	3H	0.40	1.26	0.82	1.66	2.07	13.49	14.34	13.90	14.75	15.15
	4H	1.85	2.61	2.29	3.03	3.48	13.47	14.23	13.90	14.65	15.10
	6H	3.10	3.76	3.57	4.21	4.68	13.49	14.14	13.95	14.59	15.06
	8H	3.68	4.29	4.15	4.74	5.21	13.50	14.11	13.97	14.56	15.03
	12H	4.36	4.90	4.85	5.39	5.86	13.53	14.07	14.02	14.56	15.03
8H	4H	2.93	3.55	3.40	3.99	4.46	13.37	13.98	13.84	14.43	14.90
	6H	4.55	5.05	5.05	5.55	6.03	13.42	13.92	13.92	14.42	14.90
	8H	5.39	5.84	5.91	6.36	6.85	13.48	13.93	14.00	14.44	14.94
	12H	6.37	6.77	6.88	7.26	7.83	13.59	13.99	14.11	14.49	15.06
12H	4H	3.12	3.66	3.61	4.15	4.62	13.33	13.87	13.82	14.36	14.83
	6H	4.90	5.35	5.42	5.87	6.36	13.39	13.84	13.91	14.35	14.85
	8H	5.93	6.33	6.44	6.82	7.39	13.49	13.89	14.01	14.39	14.96