

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: P1060808

Luminaire Tested: S124RDR-H350D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060808
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-H350D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

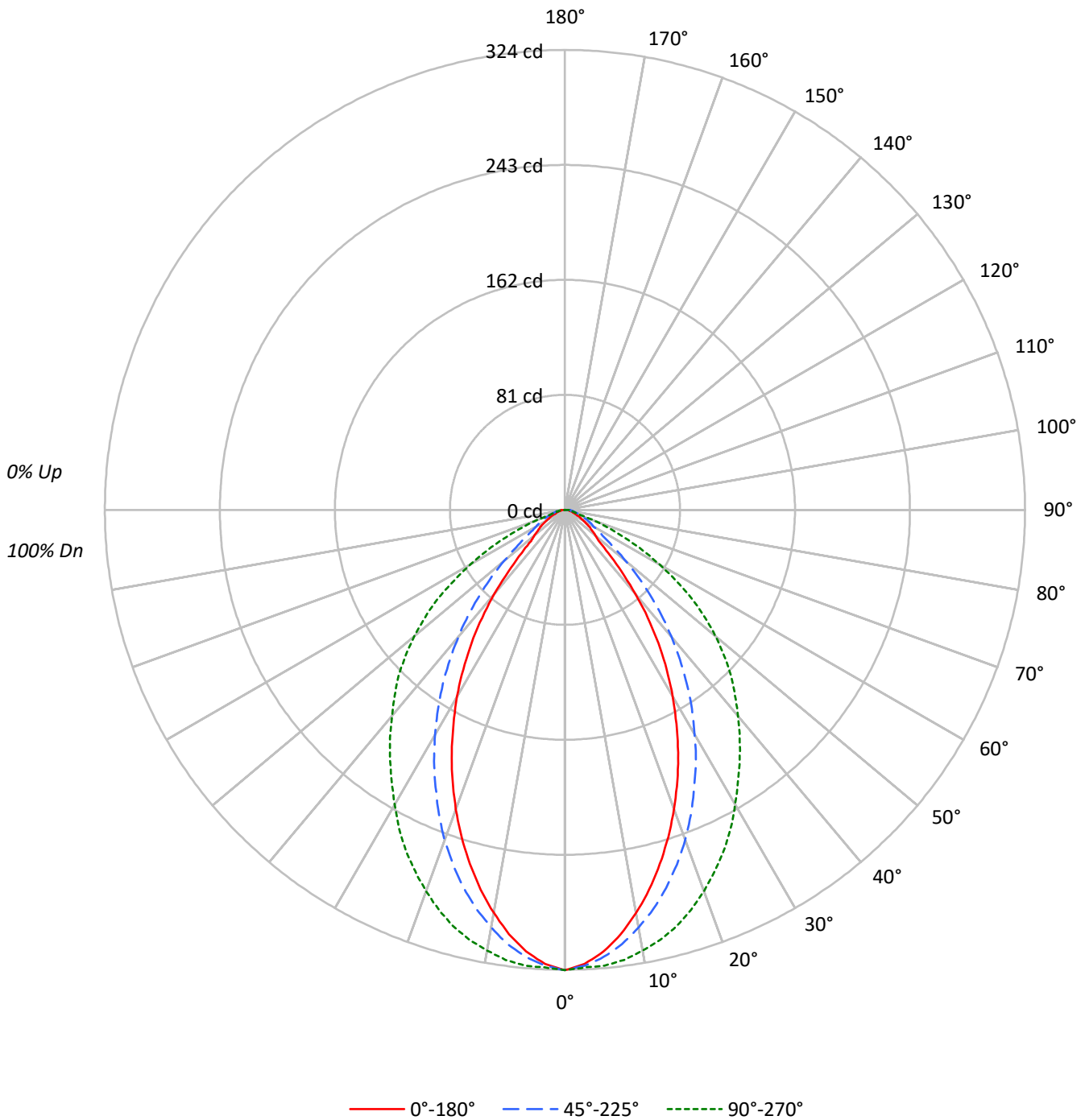
Lumens per Lamp: N/A
Luminaire Lumens: 456.0 lumens
Efficiency: N/A
Efficacy: 39.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	72	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	49	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°	2793	2793	2793
5°	2700	2732	2785
10°	2522	2612	2756
15°	2303	2457	2707
20°	2057	2269	2620
25°	1792	2047	2517
30°	1509	1818	2383
35°	1206	1575	2256
40°	868	1308	2129
45°	522	1030	2015
50°	376	746	1851
55°	315	501	1641
60°	257	398	1321
65°	202	361	950
70°	176	302	509
75°	166	276	246
80°	164	288	223
85°	247	405	287

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2015 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.8	6.5
10°-20°	78.0	17.1
20°-30°	101.2	22.2
30°-40°	97.3	21.3
40°-50°	72.2	15.8
50°-60°	44.2	9.7
60°-70°	21.5	4.7
70°-80°	8.2	1.8
80°-90°	3.7	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°	209.0	45.8
0°-40°	306.3	67.2
0°-60°	422.7	92.7
0°-90°	456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	456.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	324	324	324	324	324	
5°	312	317	316	319	322	29
15°	258	266	276	292	304	72
25°	189	198	215	243	265	86
35°	115	125	150	185	215	71
45°	43	54	85	129	166	36
55°	21	22	33	76	109	19
65°	10	11	18	28	47	10
75°	5	8	8	7	7	5
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	324.3	324.3	324.3	324.3	324.3
2.5°	320.2	323.9	321.4	322.2	322.7
5°	312.3	316.9	316.1	318.9	322.2
7.5°	301.6	307.0	308.6	314.4	319.8
10°	288.4	295.0	298.7	308.2	315.2
12.5°	274.0	281.0	288.0	300.8	310.3
15°	258.3	265.7	275.6	292.1	303.7
17.5°	241.8	250.0	262.0	281.8	295.4
20°	224.5	233.1	247.6	269.4	285.9
22.5°	206.7	215.8	231.9	256.2	275.6
25°	188.6	198.0	215.4	243.0	264.9
27.5°	170.0	179.9	199.7	229.0	252.9
30°	151.8	161.3	182.8	214.6	239.7
32.5°	133.3	143.2	166.3	199.7	226.9
35°	114.7	125.0	149.8	185.3	214.6
37.5°	95.7	106.9	132.9	171.2	202.2
40°	77.2	87.9	116.4	156.8	189.4
42.5°	59.0	70.6	100.7	142.3	177.4
45°	42.9	53.6	84.6	129.1	165.5
47.5°	32.2	38.8	69.7	116.8	152.2
50°	28.1	29.3	55.7	103.1	138.2
52.5°	24.3	25.2	43.3	88.3	124.2
55°	21.0	21.9	33.4	75.5	109.3
57.5°	17.7	18.6	26.8	63.1	92.4
60°	14.9	15.7	23.1	50.3	76.7
62.5°	12.4	12.8	20.6	38.4	61.5
65°	9.9	10.7	17.7	28.1	46.6
67.5°	8.3	9.1	14.4	19.4	32.6
70°	7.0	9.1	12.0	13.6	20.2
72.5°	5.8	8.3	9.9	9.5	9.5
75°	5.0	7.8	8.3	7.4	7.4
77.5°	4.1	7.0	6.6	6.2	5.8
80°	3.3	5.8	5.8	5.0	4.5
82.5°	2.9	4.5	4.5	4.5	3.7
85°	2.5	4.1	4.1	3.7	2.9
87.5°	1.7	3.3	3.7	3.3	2.1
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	3.39	4.73	3.75	5.04	5.36	12.48	13.82	12.84	14.13	14.44
	3H	4.44	5.62	4.82	5.95	6.32	12.98	14.17	13.36	14.50	14.86
	4H	4.95	6.06	5.36	6.41	6.79	12.99	14.10	13.40	14.45	14.83
	6H	5.40	6.42	5.81	6.79	7.18	12.99	14.01	13.41	14.38	14.77
	8H	5.59	6.55	6.02	6.94	7.35	12.99	13.95	13.42	14.34	14.75
	12H	5.81	6.73	6.24	7.11	7.54	12.99	13.91	13.42	14.29	14.72
4H	2H	4.48	5.58	4.88	5.93	6.32	12.37	13.47	12.77	13.82	14.21
	3H	5.75	6.66	6.17	7.06	7.47	12.94	13.85	13.36	14.25	14.66
	4H	6.46	7.27	6.89	7.68	8.13	12.99	13.80	13.43	14.22	14.66
	6H	7.08	7.78	7.55	8.23	8.70	13.04	13.74	13.51	14.19	14.66
	8H	7.33	7.98	7.80	8.43	8.90	13.06	13.71	13.53	14.16	14.63
	12H	7.61	8.18	8.09	8.67	9.14	13.09	13.67	13.58	14.15	14.63
8H	4H	6.88	7.54	7.35	7.98	8.45	12.94	13.59	13.41	14.04	14.51
	6H	7.76	8.29	8.26	8.79	9.27	13.04	13.57	13.54	14.07	14.55
	8H	8.16	8.64	8.68	9.16	9.65	13.10	13.58	13.62	14.09	14.58
	12H	8.64	9.06	9.15	9.56	10.13	13.19	13.62	13.71	14.11	14.69
12H	4H	6.93	7.50	7.41	7.99	8.46	12.91	13.49	13.40	13.97	14.45
	6H	7.87	8.35	8.39	8.87	9.36	13.01	13.50	13.54	14.01	14.50
	8H	8.38	8.81	8.90	9.30	9.87	13.12	13.54	13.63	14.04	14.61