

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: P1060691

Luminaire Tested: S124RDR-H1020D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060691
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-H1020D940-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

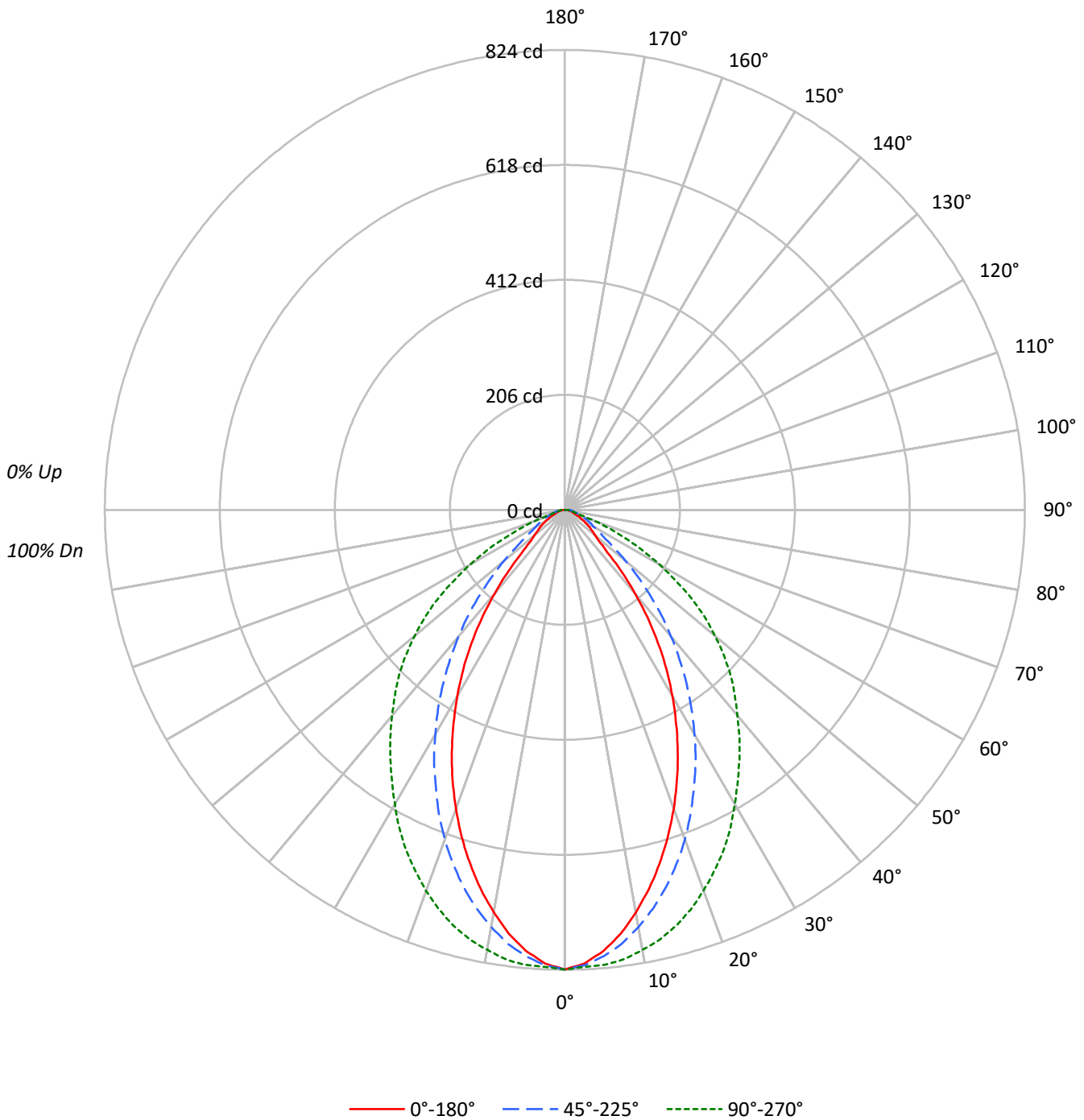
Lumens per Lamp: N/A
Luminaire Lumens: 1158.2 lumens
Efficiency: N/A
Efficacy: 37.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	46	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°	7092	7092	7092
5°	6857	6939	7074
10°	6405	6634	7000
15°	5848	6240	6875
20°	5224	5761	6655
25°	4550	5197	6392
30°	3834	4616	6053
35°	3062	3999	5728
40°	2203	3322	5407
45°	1327	2616	5117
50°	955	1896	4702
55°	802	1275	4169
60°	649	1011	3357
65°	511	919	2412
70°	448	765	1292
75°	419	699	629
80°	417	729	570
85°	622	1037	721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5117 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	6.5
10°-20°	198.1	17.1
20°-30°	257.1	22.2
30°-40°	247.1	21.3
40°-50°	183.3	15.8
50°-60°	112.3	9.7
60°-70°	54.6	4.7
70°-80°	20.8	1.8
80°-90°	9.3	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°	530.8	45.8
0°-40°	777.9	67.2
0°-60°	1073.5	92.7
0°-90°	1158.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1158.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	793	805	803	810	818	74
15°	656	675	700	742	771	183
25°	479	503	547	617	673	219
35°	291	318	380	470	545	180
45°	109	136	215	328	420	90
55°	53	56	85	192	278	48
65°	25	27	45	71	118	26
75°	13	20	21	19	19	13
85°	6	10	10	9	7	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	823.6	823.6	823.6	823.6	823.6
2.5°	813.2	822.6	816.3	818.4	819.5
5°	793.3	804.8	802.7	810.0	818.4
7.5°	766.0	779.6	783.8	798.5	812.1
10°	732.5	749.2	758.7	782.8	800.6
12.5°	695.8	713.6	731.4	763.9	788.0
15°	656.0	674.8	700.0	741.9	771.2
17.5°	614.1	635.0	665.4	715.7	750.3
20°	570.1	592.1	628.7	684.3	726.2
22.5°	525.0	548.0	588.9	650.7	700.0
25°	478.9	503.0	547.0	617.2	672.7
27.5°	431.7	456.9	507.2	581.6	642.4
30°	385.6	409.7	464.2	544.9	608.8
32.5°	338.5	363.6	422.3	507.2	576.3
35°	291.3	317.5	380.4	470.5	544.9
37.5°	243.1	271.4	337.4	434.9	513.5
40°	196.0	223.2	295.5	398.2	481.0
42.5°	149.8	179.2	255.7	361.5	450.6
45°	109.0	136.2	214.8	328.0	420.2
47.5°	81.7	98.5	177.1	296.6	386.7
50°	71.3	74.4	141.5	262.0	351.0
52.5°	61.8	63.9	110.0	224.2	315.4
55°	53.4	55.5	84.9	191.8	277.7
57.5°	45.1	47.2	68.1	160.3	234.7
60°	37.7	39.8	58.7	127.8	194.9
62.5°	31.4	32.5	52.4	97.5	156.1
65°	25.1	27.2	45.1	71.3	118.4
67.5°	21.0	23.1	36.7	49.3	82.8
70°	17.8	23.1	30.4	34.6	51.3
72.5°	14.7	21.0	25.1	24.1	24.1
75°	12.6	19.9	21.0	18.9	18.9
77.5°	10.5	17.8	16.8	15.7	14.7
80°	8.4	14.7	14.7	12.6	11.5
82.5°	7.3	11.5	11.5	11.5	9.4
85°	6.3	10.5	10.5	9.4	7.3
87.5°	4.2	8.4	9.4	8.4	5.2
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	6.63	7.96	6.99	8.28	8.59	15.72	17.06	16.08	17.37	17.68
	3H	7.67	8.86	8.05	9.19	9.55	16.22	17.41	16.60	17.74	18.10
	4H	8.19	9.29	8.59	9.64	10.03	16.23	17.34	16.64	17.69	18.07
	6H	8.64	9.65	9.05	10.02	10.42	16.23	17.25	16.65	17.62	18.01
	8H	8.83	9.79	9.26	10.18	10.59	16.23	17.19	16.66	17.58	17.99
	12H	9.04	9.96	9.47	10.34	10.77	16.23	17.15	16.66	17.53	17.96
4H	2H	7.72	8.83	8.12	9.18	9.56	15.61	16.71	16.01	17.06	17.45
	3H	8.99	9.90	9.40	10.30	10.70	16.19	17.09	16.60	17.49	17.90
	4H	9.70	10.51	10.13	10.92	11.37	16.23	17.04	16.67	17.46	17.90
	6H	10.33	11.03	10.79	11.47	11.94	16.29	16.99	16.75	17.43	17.90
	8H	10.57	11.22	11.04	11.67	12.14	16.30	16.96	16.77	17.40	17.87
	12H	10.85	11.42	11.33	11.91	12.38	16.33	16.91	16.82	17.40	17.87
8H	4H	10.12	10.78	10.59	11.22	11.69	16.18	16.84	16.65	17.28	17.75
	6H	11.00	11.53	11.50	12.03	12.51	16.28	16.81	16.78	17.31	17.79
	8H	11.40	11.89	11.93	12.40	12.89	16.34	16.82	16.86	17.33	17.82
	12H	11.88	12.31	12.40	12.80	13.37	16.43	16.86	16.95	17.36	17.93
12H	4H	10.17	10.74	10.65	11.23	11.70	16.15	16.73	16.64	17.22	17.69
	6H	11.11	11.59	11.63	12.11	12.60	16.25	16.74	16.78	17.25	17.74
	8H	11.63	12.05	12.14	12.55	13.12	16.36	16.79	16.87	17.28	17.85