

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: P1060685

Luminaire Tested: S124RDR-H1020D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060685
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D935-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

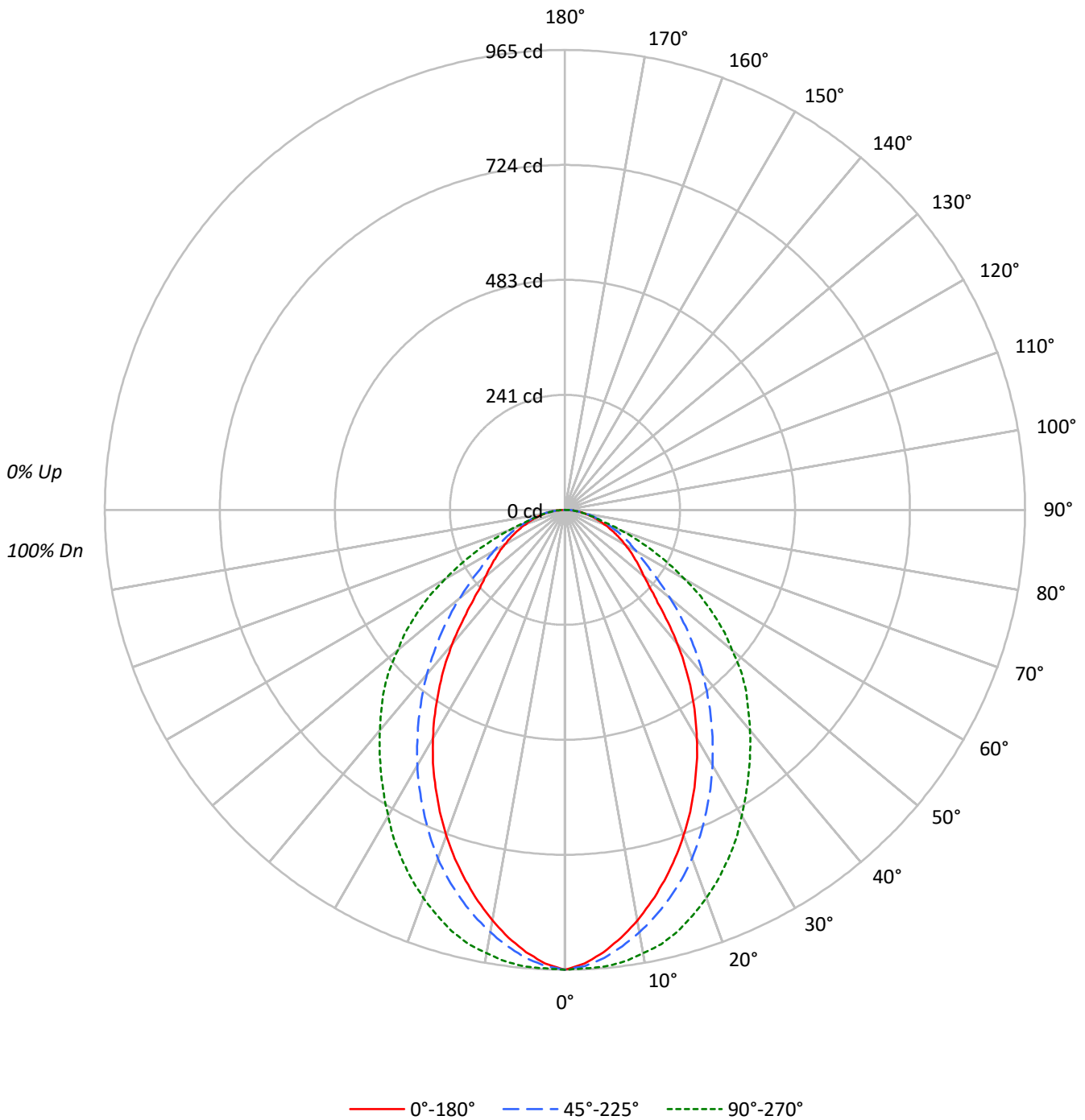
Lumens per Lamp: N/A
Luminaire Lumens: 1756.7 lumens
Efficiency: N/A
Efficacy: 56.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75			75	
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65			65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57			57	
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50			50	
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45			45	
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41			41	
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37			37	
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34			34	
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31			31	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8309	8309	8309
5°	8053	8157	8315
10°	7650	7871	8260
15°	7177	7530	8161
20°	6664	7137	7943
25°	6103	6650	7688
30°	5502	6155	7372
35°	4848	5615	7071
40°	4128	5060	6787
45°	3350	4472	6541
50°	2900	3849	6125
55°	2687	3265	5679
60°	2509	2943	4982
65°	2349	2761	4142
70°	2190	2545	3132
75°	2086	2356	2256
80°	1954	2157	1904
85°	1798	1996	1502

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6541 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	5.1
10°-20°	239.5	13.6
20°-30°	327.0	18.6
30°-40°	342.6	19.5
40°-50°	296.5	16.9
50°-60°	222.8	12.7
60°-70°	143.7	8.2
70°-80°	73.7	4.2
80°-90°	22.0	1.3
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°	655.5	37.3
0°-40°	998.1	56.8
0°-60°	1517.4	86.4
0°-90°	1756.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1756.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	932	946	944	951	962	87
15°	805	825	845	883	915	226
25°	642	667	700	755	809	295
35°	461	488	534	605	673	287
45°	275	303	367	457	537	217
55°	179	185	218	310	378	161
65°	115	117	136	164	203	115
75°	63	70	71	70	68	66
85°	18	21	20	19	15	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	964.9	964.9	964.9	964.9	964.9
2.5°	952.8	964.9	957.9	959.9	962.9
5°	931.6	945.7	943.7	950.8	961.9
7.5°	905.3	920.4	923.5	939.7	955.8
10°	874.9	892.1	900.2	924.5	944.7
12.5°	841.5	859.7	873.9	904.3	933.6
15°	805.1	825.4	844.6	883.0	915.4
17.5°	767.7	787.9	813.2	855.7	892.1
20°	727.2	749.5	778.8	823.3	866.8
22.5°	685.8	709.0	740.4	788.9	839.5
25°	642.3	666.6	699.9	754.6	809.2
27.5°	598.8	623.1	660.5	718.1	777.8
30°	553.3	578.6	619.0	681.7	741.4
32.5°	507.8	535.1	576.5	643.3	707.0
35°	461.2	487.5	534.1	604.9	672.6
37.5°	414.7	442.0	491.6	567.4	638.2
40°	367.2	395.5	450.1	530.0	603.8
42.5°	319.6	350.0	407.6	491.6	569.5
45°	275.1	303.4	367.2	457.2	537.1
47.5°	241.7	261.0	326.7	423.8	500.7
50°	216.5	226.6	287.3	387.4	457.2
52.5°	197.2	204.3	250.8	347.9	421.8
55°	179.0	185.1	217.5	310.5	378.3
57.5°	162.8	165.9	192.2	274.1	336.8
60°	145.7	148.7	170.9	234.7	289.3
62.5°	130.5	132.5	153.7	197.2	245.8
65°	115.3	117.3	135.5	163.9	203.3
67.5°	101.1	104.2	118.3	133.5	161.8
70°	87.0	93.1	101.1	108.2	124.4
72.5°	74.8	80.9	85.0	87.0	88.0
75°	62.7	69.8	70.8	69.8	67.8
77.5°	50.6	56.6	56.6	54.6	52.6
80°	39.4	44.5	43.5	41.5	38.4
82.5°	29.3	32.4	31.4	29.3	26.3
85°	18.2	21.2	20.2	19.2	15.2
87.5°	9.1	12.1	11.1	10.1	6.1
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	13.79	15.27	14.15	15.59	15.90	17.56	19.05	17.93	19.36	19.67
	3H	15.44	16.77	15.82	17.10	17.46	18.68	20.00	19.05	20.33	20.70
	4H	16.11	17.36	16.51	17.71	18.09	18.97	20.21	19.37	20.56	20.94
	6H	16.63	17.78	17.04	18.14	18.54	19.16	20.31	19.58	20.68	21.07
	8H	16.81	17.90	17.24	18.29	18.69	19.22	20.31	19.64	20.70	21.10
	12H	16.93	17.98	17.36	18.36	18.79	19.24	20.29	19.67	20.67	21.10
4H	2H	14.57	15.82	14.97	16.17	16.55	17.72	18.97	18.12	19.32	19.69
	3H	16.43	17.47	16.84	17.87	18.27	19.03	20.07	19.44	20.47	20.87
	4H	17.24	18.17	17.68	18.59	19.03	19.44	20.37	19.87	20.79	21.23
	6H	17.89	18.70	18.35	19.14	19.60	19.76	20.56	20.21	21.01	21.47
	8H	18.12	18.87	18.58	19.32	19.78	19.85	20.60	20.31	21.05	21.52
	12H	18.29	18.96	18.77	19.44	19.91	19.91	20.58	20.39	21.06	21.53
8H	4H	17.59	18.35	18.06	18.79	19.26	19.57	20.33	20.04	20.77	21.24
	6H	18.38	19.01	18.88	19.50	19.98	19.99	20.61	20.48	21.10	21.58
	8H	18.70	19.26	19.22	19.77	20.26	20.14	20.70	20.65	21.21	21.70
	12H	18.97	19.46	19.48	19.96	20.52	20.26	20.75	20.77	21.25	21.81
12H	4H	17.62	18.29	18.10	18.77	19.24	19.58	20.25	20.06	20.73	21.20
	6H	18.45	19.01	18.96	19.52	20.01	20.01	20.57	20.52	21.08	21.57
	8H	18.83	19.33	19.34	19.82	20.39	20.21	20.70	20.72	21.20	21.76