

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060297

Luminaire Tested: S124RDRP-S1020D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060297
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

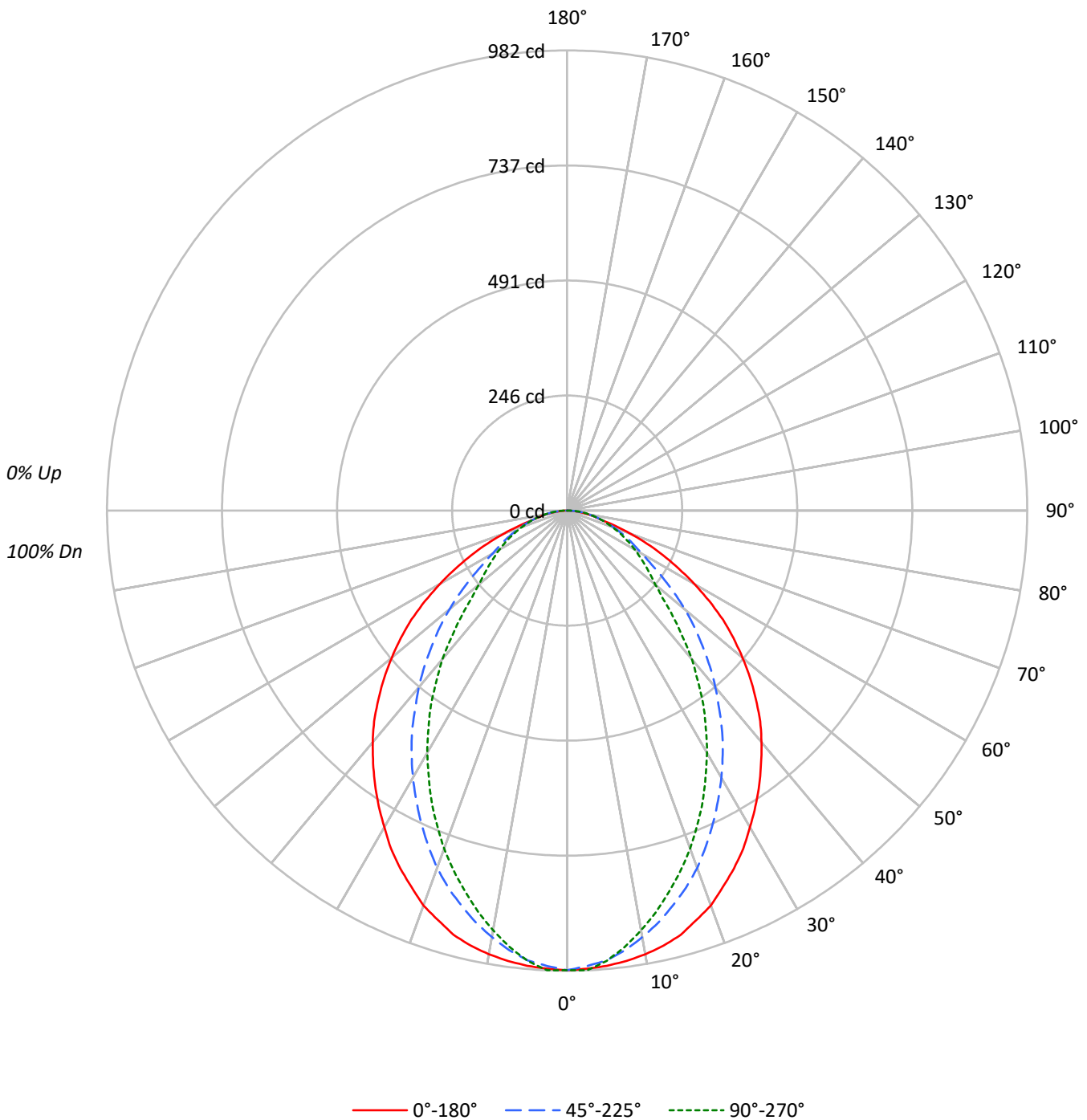
Lumens per Lamp: N/A
Luminaire Lumens: 1891.3 lumens
Efficiency: N/A
Efficacy: 54.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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	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	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76					74				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66					64				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46					44				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38					36				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35					33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8446	8446	8446
5°	8429	8329	8339
10°	8406	8083	7952
15°	8354	7778	7501
20°	8217	7435	7034
25°	8005	6998	6505
30°	7759	6544	5936
35°	7512	6070	5331
40°	7255	5533	4652
45°	6934	4969	3888
50°	6547	4385	3289
55°	6091	3720	3046
60°	5399	3157	2878
65°	4603	2912	2724
70°	3598	2699	2583
75°	2455	2492	2492
80°	2113	2346	2400
85°	1818	2282	2510

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6934 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	4.8
10°-20°	247.8	13.1
20°-30°	344.1	18.2
30°-40°	368.8	19.5
40°-50°	326.7	17.3
50°-60°	246.2	13.0
60°-70°	159.4	8.4
70°-80°	81.8	4.3
80°-90°	25.1	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°	683.1	36.1
0°-40°	1051.9	55.6
0°-60°	1624.9	85.9
0°-90°	1891.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1891.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	975	976	964	965	965	93
15°	937	916	872	851	841	264
25°	842	798	736	697	685	388
35°	715	650	577	526	507	447
45°	569	496	408	345	319	439
55°	406	338	248	209	203	360
65°	226	182	143	135	134	224
75°	74	77	75	75	75	87
85°	18	20	23	25	25	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.8	980.8	980.8	980.8	980.8
2.5°	978.5	982.0	972.8	979.7	982.0
5°	975.1	976.2	963.6	964.7	964.7
7.5°	969.3	967.0	946.3	940.5	939.4
10°	961.3	954.3	924.4	912.8	909.4
12.5°	950.9	938.2	900.2	884.0	877.1
15°	937.1	916.3	872.5	850.6	841.4
17.5°	916.3	889.8	843.7	816.0	805.7
20°	896.7	861.0	811.4	776.8	767.6
22.5°	869.0	831.0	774.5	737.7	726.1
25°	842.5	797.6	736.5	697.3	684.6
27.5°	813.7	763.0	697.3	655.8	639.7
30°	780.3	726.1	658.1	614.3	597.0
32.5°	748.0	690.4	617.8	569.4	550.9
35°	714.6	650.1	577.4	525.6	507.1
37.5°	680.0	612.0	532.5	481.8	457.6
40°	645.4	574.0	492.2	434.5	413.8
42.5°	609.7	534.8	450.7	390.7	364.2
45°	569.4	495.6	408.0	344.6	319.3
47.5°	530.2	457.6	368.8	299.7	276.6
50°	488.7	417.2	327.3	260.5	245.5
52.5°	447.2	375.7	287.0	230.5	223.6
55°	405.7	337.7	247.8	208.6	202.9
57.5°	359.6	298.5	213.2	189.0	184.4
60°	313.5	255.9	183.3	170.6	167.1
62.5°	268.6	219.0	162.5	152.1	149.8
65°	225.9	182.1	142.9	134.9	133.7
67.5°	184.4	149.8	124.5	119.9	117.6
70°	142.9	119.9	107.2	104.9	102.6
72.5°	106.0	96.8	91.1	89.9	88.7
75°	73.8	77.2	74.9	74.9	74.9
77.5°	58.8	59.9	61.1	62.2	61.1
80°	42.6	46.1	47.3	49.6	48.4
82.5°	30.0	32.3	35.7	36.9	38.0
85°	18.4	19.6	23.1	25.4	25.4
87.5°	8.1	9.2	11.5	13.8	15.0
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	17.85	19.35	18.22	19.66	19.98	14.42	15.91	14.78	16.23	16.54
	3H	19.06	20.40	19.44	20.73	21.09	16.11	17.46	16.49	17.78	18.15
	4H	19.36	20.62	19.76	20.97	21.35	16.79	18.05	17.19	18.40	18.78
	6H	19.57	20.73	19.98	21.10	21.49	17.34	18.50	17.75	18.87	19.26
	8H	19.62	20.73	20.05	21.12	21.52	17.56	18.66	17.98	19.05	19.45
	12H	19.66	20.72	20.09	21.10	21.53	17.73	18.79	18.16	19.17	19.60
4H	2H	17.99	19.25	18.39	19.60	19.98	15.08	16.34	15.48	16.68	17.06
	3H	19.40	20.44	19.81	20.84	21.24	16.99	18.03	17.40	18.43	18.83
	4H	19.82	20.76	20.26	21.18	21.62	17.79	18.73	18.22	19.14	19.58
	6H	20.15	20.96	20.60	21.41	21.87	18.48	19.29	18.93	19.74	20.20
	8H	20.24	21.01	20.71	21.45	21.92	18.75	19.51	19.21	19.96	20.43
	12H	20.32	21.00	20.80	21.48	21.95	18.98	19.66	19.46	20.14	20.61
8H	4H	19.95	20.71	20.41	21.16	21.63	18.11	18.87	18.57	19.31	19.78
	6H	20.37	21.00	20.87	21.49	21.97	18.93	19.57	19.43	20.06	20.54
	8H	20.53	21.10	21.04	21.61	22.09	19.30	19.87	19.81	20.38	20.87
	12H	20.66	21.16	21.17	21.65	22.22	19.63	20.14	20.14	20.63	21.19
12H	4H	19.96	20.64	20.44	21.12	21.59	18.13	18.82	18.62	19.29	19.77
	6H	20.40	20.96	20.91	21.47	21.96	18.99	19.56	19.51	20.07	20.56
	8H	20.60	21.11	21.11	21.60	22.16	19.43	19.93	19.94	20.42	20.99