

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: P1060289

Luminaire Tested: S124RDRP-S1020D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060289
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: S124RDRP-S1020D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

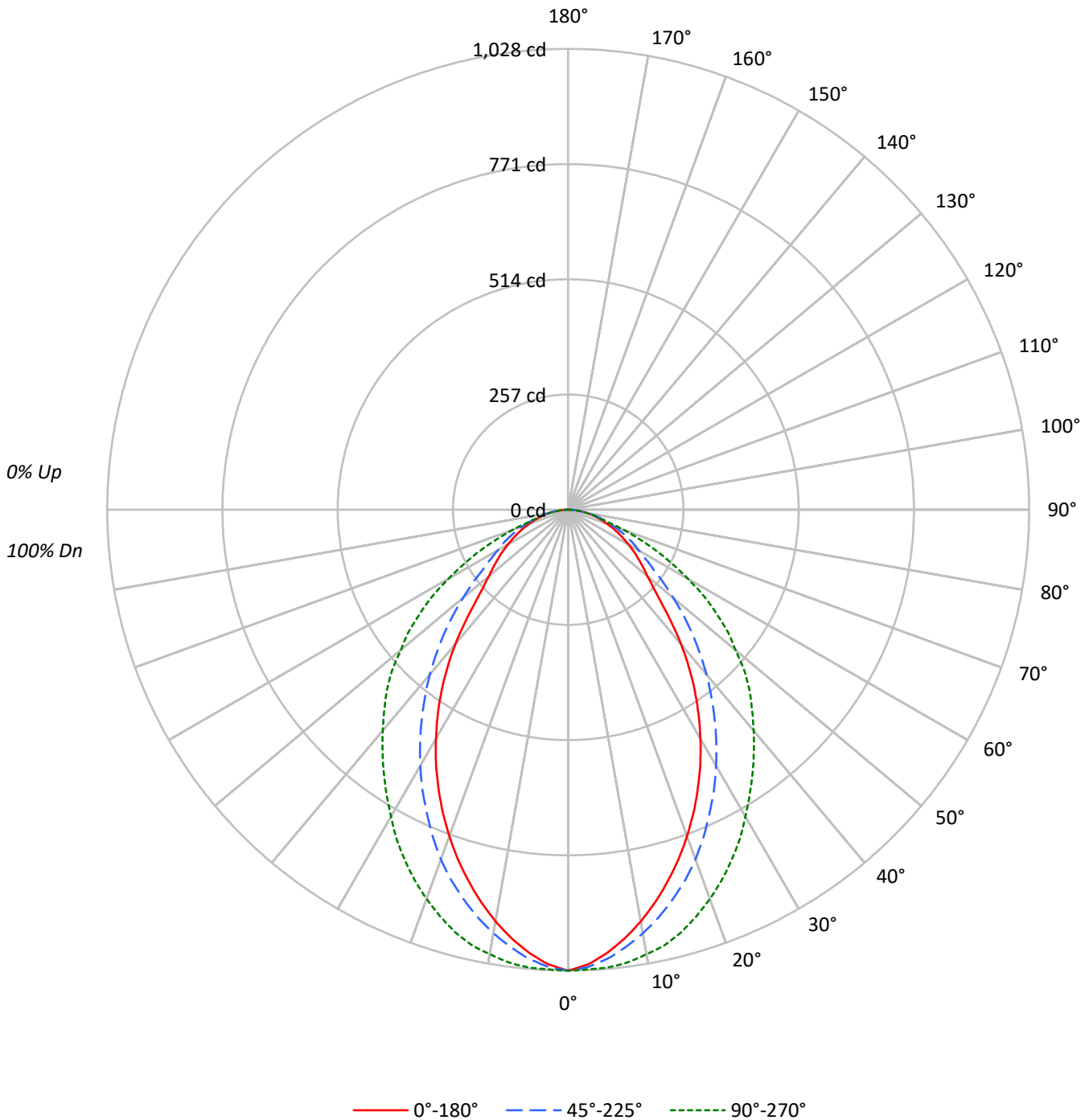
Lumens per Lamp: N/A
Luminaire Lumens: 1872.2 lumens
Efficiency: N/A
Efficacy: 53.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																												
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50																												
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41																												
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37																												
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8855	8855	8855
5°	8582	8693	8861
10°	8153	8389	8803
15°	7649	8024	8696
20°	7102	7606	8465
25°	6504	7087	8193
30°	5863	6560	7856
35°	5167	5983	7535
40°	4399	5392	7234
45°	3571	4765	6971
50°	3091	4101	6527
55°	2864	3480	6052
60°	2673	3138	5310
65°	2504	2942	4415
70°	2334	2714	3339
75°	2222	2512	2402
80°	2083	2301	2033
85°	1917	2134	1601

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6971 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.0	5.1
10°-20°	255.2	13.6
20°-30°	348.5	18.6
30°-40°	365.1	19.5
40°-50°	316.0	16.9
50°-60°	237.4	12.7
60°-70°	153.1	8.2
70°-80°	78.5	4.2
80°-90°	23.5	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°	698.6	37.3
0°-40°	1063.7	56.8
0°-60°	1617.1	86.4
0°-90°	1872.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1872.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1028	1028	1028	1028	1028	
5°	993	1008	1006	1013	1025	93
15°	858	880	900	941	976	241
25°	684	710	746	804	862	314
35°	492	520	569	645	717	306
45°	293	323	391	487	572	231
55°	191	197	232	331	403	171
65°	123	125	144	175	217	122
75°	67	74	76	74	72	71
85°	19	23	22	20	16	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1028.3	1028.3	1028.3	1028.3	1028.3
2.5°	1015.4	1028.3	1020.8	1023.0	1026.2
5°	992.8	1007.9	1005.7	1013.3	1025.1
7.5°	964.7	980.9	984.2	1001.4	1018.6
10°	932.4	950.7	959.4	985.2	1006.8
12.5°	896.8	916.2	931.3	963.7	994.9
15°	858.0	879.6	900.1	941.0	975.5
17.5°	818.1	839.7	866.7	911.9	950.7
20°	775.0	798.7	830.0	877.4	923.8
22.5°	730.8	755.6	789.0	840.8	894.7
25°	684.5	710.4	745.9	804.1	862.3
27.5°	638.1	664.0	703.9	765.3	828.9
30°	589.6	616.6	659.7	726.5	790.1
32.5°	541.1	570.2	614.4	685.6	753.5
35°	491.5	519.6	569.1	644.6	716.8
37.5°	442.0	471.1	523.9	604.7	680.2
40°	391.3	421.5	479.7	564.8	643.5
42.5°	340.6	373.0	434.4	523.9	606.9
45°	293.2	323.4	391.3	487.2	572.4
47.5°	257.6	278.1	348.2	451.7	533.6
50°	230.7	241.5	306.1	412.8	487.2
52.5°	210.2	217.7	267.3	370.8	449.5
55°	190.8	197.3	231.8	330.9	403.1
57.5°	173.5	176.8	204.8	292.1	359.0
60°	155.2	158.5	182.2	250.1	308.3
62.5°	139.1	141.2	163.8	210.2	261.9
65°	122.9	125.0	144.4	174.6	216.7
67.5°	107.8	111.0	126.1	142.3	172.5
70°	92.7	99.2	107.8	115.3	132.6
72.5°	79.8	86.2	90.5	92.7	93.8
75°	66.8	74.4	75.5	74.4	72.2
77.5°	53.9	60.4	60.4	58.2	56.1
80°	42.0	47.4	46.4	44.2	41.0
82.5°	31.3	34.5	33.4	31.3	28.0
85°	19.4	22.6	21.6	20.5	16.2
87.5°	9.7	12.9	11.9	10.8	6.5
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	14.01	15.49	14.38	15.81	16.12	17.78	19.27	18.15	19.58	19.90
	3H	15.67	16.99	16.04	17.32	17.68	18.90	20.23	19.28	20.55	20.92
	4H	16.34	17.58	16.74	17.93	18.31	19.19	20.43	19.59	20.78	21.16
	6H	16.85	18.00	17.26	18.36	18.76	19.38	20.53	19.80	20.90	21.29
	8H	17.03	18.12	17.46	18.51	18.92	19.44	20.53	19.87	20.92	21.32
	12H	17.16	18.20	17.59	18.58	19.01	19.46	20.51	19.90	20.89	21.32
4H	2H	14.79	16.04	15.19	16.39	16.77	17.94	19.19	18.34	19.54	19.92
	3H	16.65	17.69	17.07	18.09	18.49	19.25	20.29	19.67	20.69	21.09
	4H	17.46	18.39	17.90	18.81	19.25	19.66	20.59	20.10	21.01	21.45
	6H	18.11	18.92	18.57	19.36	19.82	19.98	20.79	20.44	21.23	21.69
	8H	18.34	19.09	18.80	19.54	20.01	20.07	20.83	20.53	21.27	21.74
	12H	18.51	19.18	18.99	19.66	20.13	20.13	20.81	20.62	21.28	21.76
8H	4H	17.81	18.57	18.28	19.01	19.48	19.80	20.55	20.26	20.99	21.46
	6H	18.61	19.23	19.10	19.72	20.20	20.21	20.83	20.71	21.32	21.80
	8H	18.93	19.49	19.44	20.00	20.49	20.36	20.92	20.87	21.43	21.92
	12H	19.19	19.69	19.70	20.18	20.74	20.48	20.98	20.99	21.47	22.04
12H	4H	17.84	18.52	18.33	18.99	19.47	19.80	20.47	20.28	20.95	21.42
	6H	18.67	19.23	19.18	19.74	20.23	20.23	20.79	20.74	21.30	21.79
	8H	19.05	19.55	19.56	20.04	20.61	20.43	20.93	20.94	21.42	21.98