

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: P1060238

Luminaire Tested: S124RDRP-S1020D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060238
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

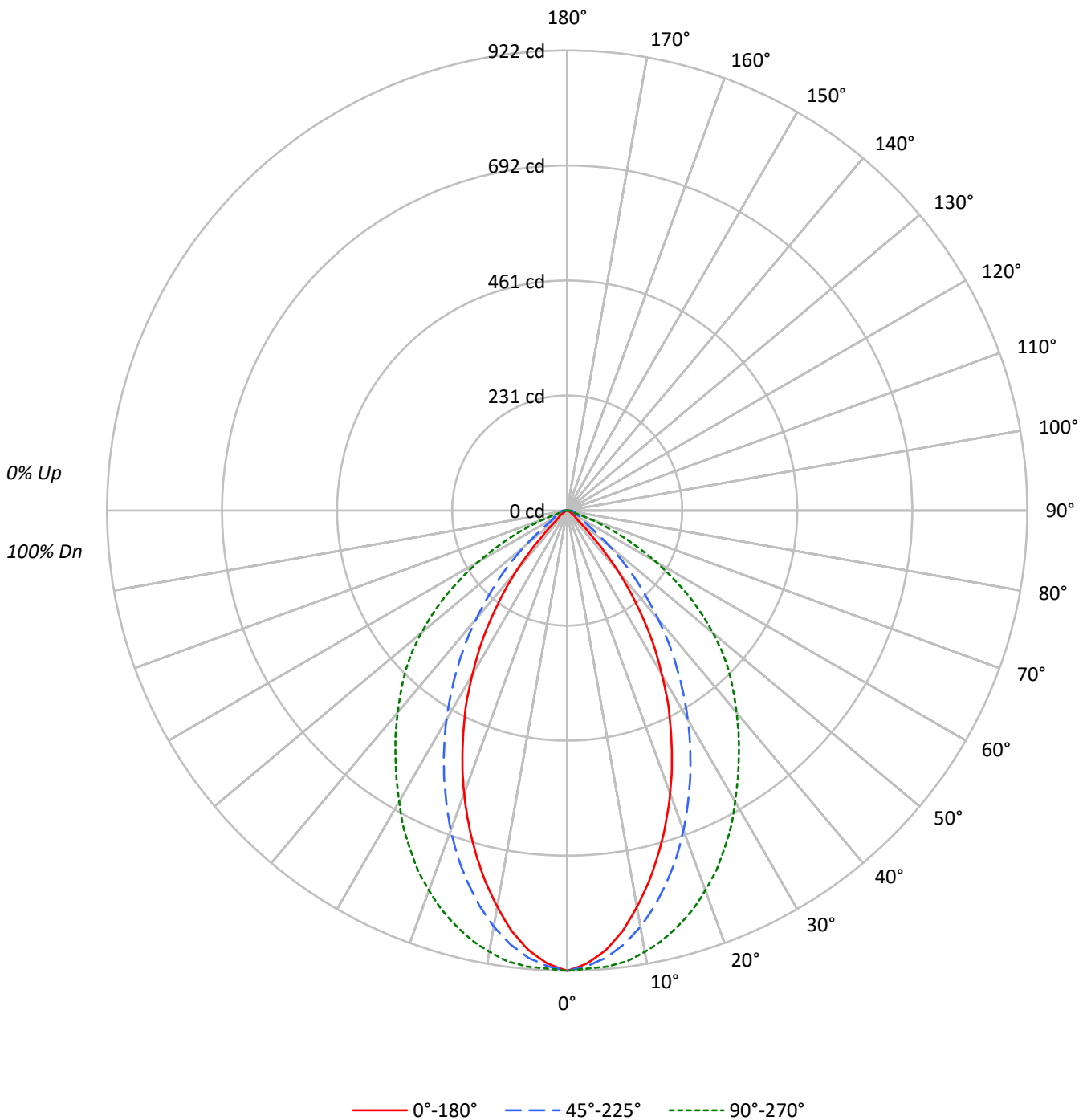
Lumens per Lamp: N/A
Luminaire Lumens: 1157.4 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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																			100									
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			90									
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81																			81									
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73																			73									
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65																			65									
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59																			59									
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54																			54									
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50																			50									
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46																			46									
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42																			42									
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39																			39									

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7941	7941	7941
5°	7644	7771	7929
10°	7049	7401	7849
15°	6326	6871	7677
20°	5529	6246	7421
25°	4677	5547	7091
30°	3777	4810	6692
35°	2812	4019	6304
40°	1785	3186	5932
45°	714	2336	5593
50°	311	1488	5105
55°	239	770	4456
60°	169	525	3534
65°	124	522	2415
70°	123	461	1108
75°	163	489	446
80°	243	545	486
85°	484	968	721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5593 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	7.3
10°-20°	217.7	18.8
20°-30°	275.0	23.8
30°-40°	252.6	21.8
40°-50°	172.2	14.9
50°-60°	93.4	8.1
60°-70°	39.6	3.4
70°-80°	13.7	1.2
80°-90°	8.7	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°	577.1	49.9
0°-40°	829.7	71.7
0°-60°	1095.3	94.6
0°-90°	1157.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1157.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	884	898	899	906	917	82
15°	710	733	771	826	861	198
25°	492	524	584	674	746	225
35°	268	303	382	502	600	166
45°	59	94	192	340	459	54
55°	16	17	51	187	297	14
65°	6	7	26	59	118	6
75°	5	13	15	13	13	5
85°	5	10	10	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	922.2	922.2	922.2	922.2	922.2
2.5°	908.7	919.7	913.6	916.1	918.5
5°	884.3	897.7	899.0	906.3	917.3
7.5°	850.1	866.0	875.8	894.1	911.2
10°	806.1	825.7	846.4	875.8	897.7
12.5°	759.7	780.5	811.0	852.5	881.9
15°	709.6	732.9	770.7	825.7	861.1
17.5°	657.1	682.8	728.0	792.7	837.9
20°	603.4	631.5	681.6	754.8	809.8
22.5°	548.4	577.7	632.7	715.8	780.5
25°	492.2	524.0	583.8	674.2	746.3
27.5°	438.5	467.8	533.8	632.7	712.1
30°	379.9	412.8	483.7	589.9	673.0
32.5°	326.1	357.9	432.4	546.0	636.4
35°	267.5	302.9	382.3	502.0	599.7
37.5°	212.5	246.7	333.4	460.5	564.3
40°	158.8	194.2	283.4	418.9	527.7
42.5°	106.3	144.1	235.7	376.2	493.5
45°	58.6	94.0	191.8	339.6	459.3
47.5°	30.5	51.3	150.2	302.9	422.6
50°	23.2	28.1	111.1	262.6	381.1
52.5°	19.5	20.8	75.7	222.3	339.6
55°	15.9	17.1	51.3	186.9	296.8
57.5°	12.2	13.4	36.6	152.7	249.2
60°	9.8	11.0	30.5	117.3	205.2
62.5°	7.3	8.5	29.3	86.7	161.2
65°	6.1	7.3	25.6	58.6	118.5
67.5°	4.9	7.3	22.0	37.9	79.4
70°	4.9	9.8	18.3	24.4	44.0
72.5°	4.9	11.0	15.9	15.9	15.9
75°	4.9	13.4	14.7	13.4	13.4
77.5°	4.9	12.2	12.2	12.2	12.2
80°	4.9	11.0	11.0	11.0	9.8
82.5°	4.9	9.8	11.0	11.0	8.5
85°	4.9	9.8	9.8	9.8	7.3
87.5°	3.7	9.8	9.8	9.8	4.9
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	0.00	0.00	0.00	0.00	0.00	15.64	16.92	16.01	17.23	17.55
	3H	0.00	0.28	0.00	0.61	0.97	16.00	17.13	16.38	17.46	17.82
	4H	0.53	1.58	0.94	1.93	2.32	15.96	17.01	16.37	17.36	17.75
	6H	1.91	2.87	2.32	3.24	3.64	15.94	16.90	16.35	17.27	17.67
	8H	2.59	3.50	3.02	3.89	4.30	15.93	16.84	16.36	17.23	17.64
	12H	3.40	4.27	3.83	4.65	5.08	15.93	16.80	16.36	17.18	17.61
4H	2H	1.33	2.37	1.73	2.73	3.11	15.44	16.49	15.85	16.85	17.23
	3H	2.75	3.61	3.17	4.01	4.42	15.84	16.69	16.25	17.10	17.50
	4H	4.20	4.97	4.64	5.39	5.83	15.82	16.58	16.25	17.00	17.45
	6H	5.45	6.11	5.92	6.56	7.03	15.84	16.50	16.30	16.94	17.41
	8H	6.02	6.64	6.50	7.09	7.56	15.85	16.46	16.32	16.91	17.38
	12H	6.70	7.25	7.19	7.73	8.20	15.88	16.43	16.37	16.91	17.38
8H	4H	5.28	5.90	5.75	6.34	6.81	15.72	16.33	16.19	16.78	17.25
	6H	6.90	7.40	7.40	7.90	8.38	15.77	16.27	16.27	16.77	17.25
	8H	7.73	8.19	8.26	8.70	9.19	15.83	16.28	16.35	16.80	17.29
	12H	8.70	9.10	9.22	9.60	10.17	15.94	16.34	16.46	16.84	17.41
12H	4H	5.47	6.01	5.96	6.50	6.97	15.68	16.22	16.17	16.71	17.18
	6H	7.24	7.69	7.77	8.21	8.70	15.74	16.19	16.26	16.71	17.20
	8H	8.27	8.67	8.78	9.16	9.73	15.84	16.24	16.36	16.74	17.31