

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: P1060229

Luminaire Tested: S124RDRP-S1020D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060229
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-S1020D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

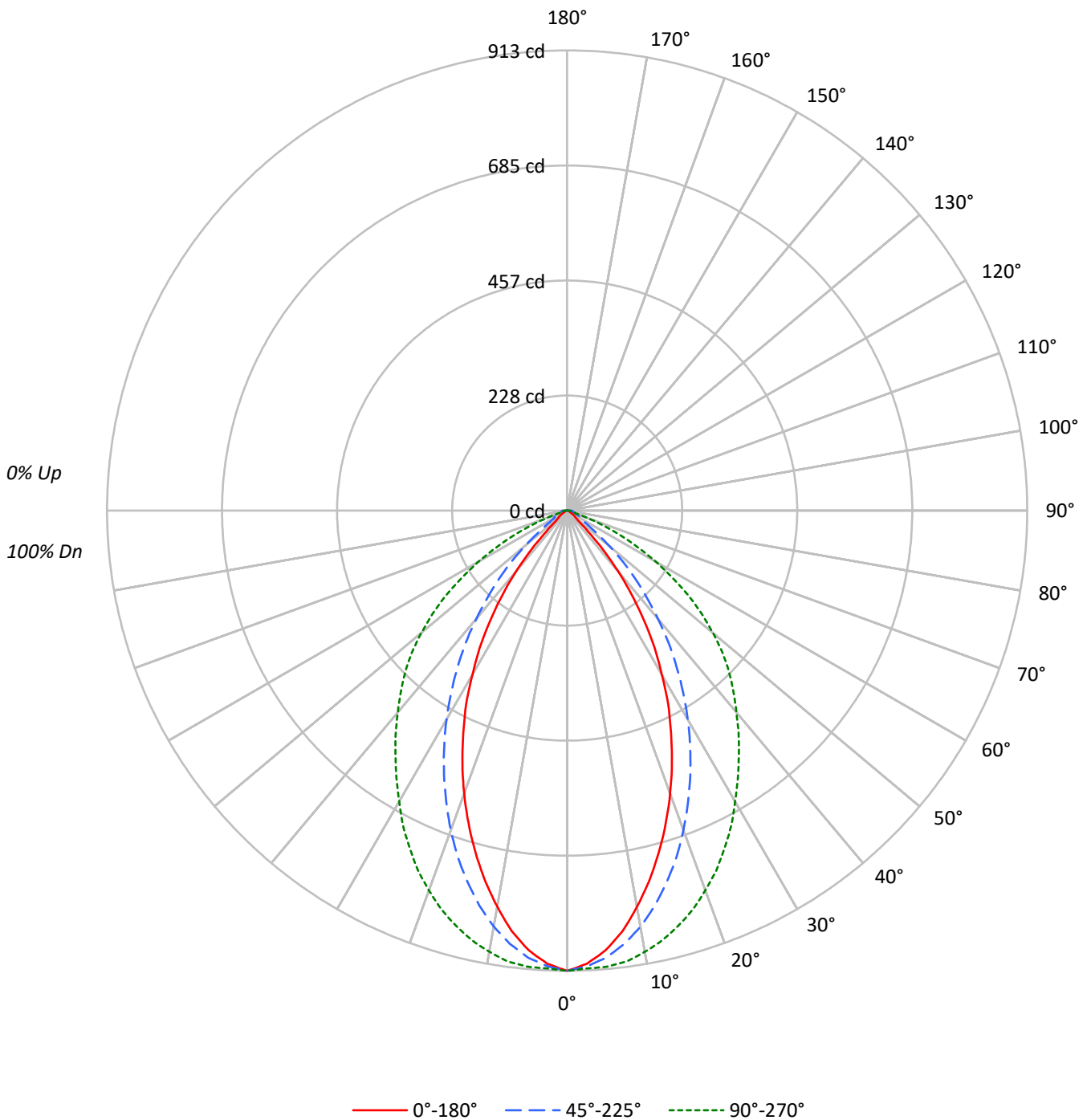
Lumens per Lamp: N/A
Luminaire Lumens: 1146.1 lumens
Efficiency: N/A
Efficacy: 32.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	7864	7864	7864
5°	7570	7695	7851
10°	6980	7329	7773
15°	6265	6804	7602
20°	5475	6185	7348
25°	4631	5493	7021
30°	3740	4763	6626
35°	2785	3980	6243
40°	1767	3154	5873
45°	708	2313	5539
50°	308	1475	5056
55°	236	763	4412
60°	167	520	3500
65°	122	518	2390
70°	121	456	1095
75°	160	482	443
80°	238	541	481
85°	474	958	721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5539 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	7.3
10°-20°	215.6	18.8
20°-30°	272.3	23.8
30°-40°	250.1	21.8
40°-50°	170.5	14.9
50°-60°	92.5	8.1
60°-70°	39.2	3.4
70°-80°	13.6	1.2
80°-90°	8.6	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°	571.5	49.9
0°-40°	821.6	71.7
0°-60°	1084.7	94.6
0°-90°	1146.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1146.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	913	913	913	913	913	
5°	876	889	890	897	908	81
15°	703	726	763	818	853	196
25°	487	519	578	668	739	223
35°	265	300	379	497	594	165
45°	58	93	190	336	455	53
55°	16	17	51	185	294	14
65°	6	7	25	58	117	6
75°	5	13	14	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°	913.2	913.2	913.2	913.2	913.2
2.5°	899.9	910.7	904.7	907.1	909.5
5°	875.7	889.0	890.2	897.4	908.3
7.5°	841.8	857.5	867.2	885.3	902.3
10°	798.3	817.6	838.2	867.2	889.0
12.5°	752.3	772.9	803.1	844.2	873.2
15°	702.7	725.7	763.2	817.6	852.7
17.5°	650.7	676.1	720.9	785.0	829.7
20°	597.5	625.3	674.9	747.5	801.9
22.5°	543.1	572.1	626.5	708.8	772.9
25°	487.4	518.9	578.1	667.6	739.0
27.5°	434.2	463.2	528.5	626.5	705.1
30°	376.1	408.8	479.0	584.2	666.4
32.5°	322.9	354.4	428.2	540.6	630.1
35°	264.9	300.0	378.6	497.1	593.9
37.5°	210.5	244.3	330.2	456.0	558.8
40°	157.2	192.3	280.6	414.9	522.5
42.5°	105.2	142.7	233.4	372.5	488.6
45°	58.1	93.1	189.9	336.2	454.8
47.5°	30.2	50.8	148.8	300.0	418.5
50°	23.0	27.8	110.1	260.0	377.4
52.5°	19.4	20.6	75.0	220.1	336.2
55°	15.7	16.9	50.8	185.1	293.9
57.5°	12.1	13.3	36.3	151.2	246.7
60°	9.7	10.9	30.2	116.1	203.2
62.5°	7.3	8.5	29.0	85.9	159.7
65°	6.0	7.3	25.4	58.1	117.3
67.5°	4.8	7.3	21.8	37.5	78.6
70°	4.8	9.7	18.1	24.2	43.5
72.5°	4.8	10.9	15.7	15.7	15.7
75°	4.8	13.3	14.5	13.3	13.3
77.5°	4.8	12.1	12.1	12.1	12.1
80°	4.8	10.9	10.9	10.9	9.7
82.5°	4.8	9.7	10.9	10.9	8.5
85°	4.8	9.7	9.7	9.7	7.3
87.5°	3.6	9.7	9.7	9.7	4.8
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	15.61	16.88	15.97	17.20	17.51
	3H	0.00	0.25	0.00	0.58	0.95	15.96	17.09	16.34	17.42	17.79
	4H	0.50	1.55	0.90	1.90	2.28	15.93	16.98	16.33	17.33	17.71
	6H	1.86	2.82	2.27	3.19	3.59	15.90	16.87	16.32	17.24	17.63
	8H	2.54	3.45	2.97	3.84	4.24	15.89	16.80	16.32	17.20	17.60
	12H	3.33	4.20	3.77	4.59	5.02	15.89	16.76	16.32	17.15	17.58
4H	2H	1.30	2.35	1.71	2.70	3.09	15.41	16.46	15.81	16.81	17.19
	3H	2.73	3.58	3.14	3.99	4.39	15.80	16.66	16.22	17.06	17.47
	4H	4.17	4.94	4.61	5.36	5.80	15.78	16.55	16.22	16.97	17.41
	6H	5.42	6.08	5.88	6.52	6.99	15.80	16.46	16.27	16.91	17.38
	8H	5.98	6.60	6.45	7.05	7.52	15.81	16.43	16.28	16.88	17.35
	12H	6.66	7.20	7.14	7.68	8.16	15.85	16.39	16.34	16.88	17.35
8H	4H	5.25	5.86	5.72	6.31	6.78	15.68	16.30	16.15	16.75	17.22
	6H	6.86	7.36	7.36	7.86	8.34	15.74	16.24	16.24	16.73	17.22
	8H	7.69	8.15	8.22	8.66	9.16	15.79	16.24	16.32	16.76	17.25
	12H	8.66	9.06	9.18	9.55	10.13	15.91	16.31	16.43	16.81	17.38
12H	4H	5.44	5.98	5.93	6.46	6.94	15.65	16.19	16.13	16.67	17.15
	6H	7.21	7.66	7.73	8.18	8.67	15.70	16.16	16.23	16.67	17.16
	8H	8.23	8.63	8.75	9.13	9.70	15.81	16.21	16.32	16.70	17.28