

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: P1060487

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060487
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-S575D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

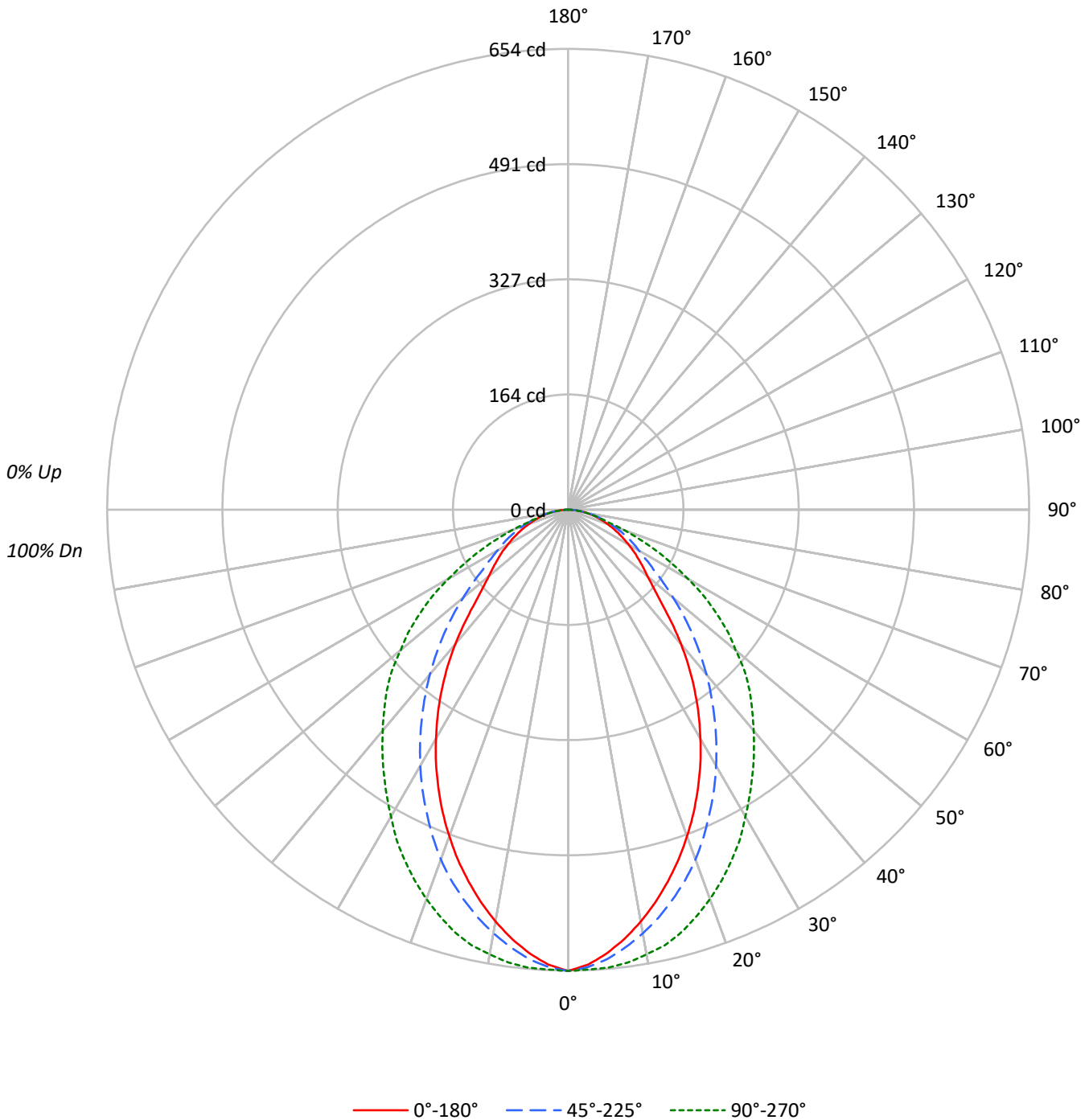
Lumens per Lamp: N/A
Luminaire Lumens: 1191.5 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	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°	5636	5636	5636
5°	5461	5532	5639
10°	5189	5338	5602
15°	4868	5106	5534
20°	4520	4840	5387
25°	4139	4510	5214
30°	3731	4174	4999
35°	3288	3808	4796
40°	2799	3432	4603
45°	2272	3032	4436
50°	1967	2610	4154
55°	1823	2214	3852
60°	1702	1996	3379
65°	1593	1873	2810
70°	1485	1727	2125
75°	1414	1597	1530
80°	1329	1463	1294
85°	1215	1354	1018

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4436 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	5.1
10°-20°	162.4	13.6
20°-30°	221.8	18.6
30°-40°	232.3	19.5
40°-50°	201.1	16.9
50°-60°	151.1	12.7
60°-70°	97.5	8.2
70°-80°	50.0	4.2
80°-90°	14.9	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°	444.6	37.3
0°-40°	676.9	56.8
0°-60°	1029.2	86.4
0°-90°	1191.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1191.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	632	641	640	645	652	59
15°	546	560	573	599	621	153
25°	436	452	475	512	549	200
35°	313	331	362	410	456	195
45°	187	206	249	310	364	147
55°	121	126	148	211	257	109
65°	78	80	92	111	138	78
75°	42	47	48	47	46	45
85°	12	14	14	13	10	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	654.5	654.5	654.5	654.5	654.5
2.5°	646.2	654.5	649.6	651.0	653.1
5°	631.8	641.4	640.0	644.8	652.4
7.5°	614.0	624.3	626.3	637.3	648.3
10°	593.4	605.1	610.5	627.0	640.7
12.5°	570.8	583.1	592.7	613.3	633.2
15°	546.1	559.8	572.8	598.9	620.8
17.5°	520.7	534.4	551.5	580.4	605.1
20°	493.2	508.3	528.2	558.4	587.9
22.5°	465.1	480.9	502.2	535.1	569.4
25°	435.6	452.1	474.7	511.8	548.8
27.5°	406.1	422.6	448.0	487.1	527.5
30°	375.2	392.4	419.8	462.4	502.8
32.5°	344.4	362.9	391.0	436.3	479.5
35°	312.8	330.7	362.2	410.2	456.2
37.5°	281.3	299.8	333.4	384.8	432.9
40°	249.0	268.2	305.3	359.5	409.5
42.5°	216.8	237.4	276.5	333.4	386.2
45°	186.6	205.8	249.0	310.1	364.3
47.5°	164.0	177.0	221.6	287.4	339.6
50°	146.8	153.7	194.8	262.7	310.1
52.5°	133.8	138.6	170.1	236.0	286.1
55°	121.4	125.5	147.5	210.6	256.6
57.5°	110.4	112.5	130.3	185.9	228.4
60°	98.8	100.8	115.9	159.2	196.2
62.5°	88.5	89.9	104.3	133.8	166.7
65°	78.2	79.6	91.9	111.1	137.9
67.5°	68.6	70.7	80.3	90.6	109.8
70°	59.0	63.1	68.6	73.4	84.4
72.5°	50.8	54.9	57.6	59.0	59.7
75°	42.5	47.3	48.0	47.3	46.0
77.5°	34.3	38.4	38.4	37.0	35.7
80°	26.8	30.2	29.5	28.1	26.1
82.5°	19.9	22.0	21.3	19.9	17.8
85°	12.3	14.4	13.7	13.0	10.3
87.5°	6.2	8.2	7.5	6.9	4.1
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	12.44	13.92	12.80	14.24	14.55	16.21	17.70	16.58	18.01	18.32
	3H	14.09	15.42	14.47	15.75	16.11	17.33	18.66	17.71	18.98	19.35
	4H	14.76	16.01	15.17	16.36	16.74	17.62	18.86	18.02	19.21	19.59
	6H	15.28	16.43	15.69	16.79	17.19	17.82	18.96	18.23	19.33	19.72
	8H	15.46	16.55	15.89	16.94	17.35	17.87	18.96	18.30	19.35	19.75
	12H	15.59	16.63	16.02	17.01	17.44	17.89	18.94	18.33	19.32	19.75
4H	2H	13.22	14.47	13.62	14.82	15.20	16.37	17.62	16.77	17.97	18.35
	3H	15.08	16.12	15.49	16.52	16.92	17.68	18.72	18.10	19.12	19.52
	4H	15.89	16.82	16.33	17.24	17.68	18.09	19.02	18.53	19.44	19.88
	6H	16.54	17.35	17.00	17.79	18.25	18.41	19.22	18.87	19.66	20.12
	8H	16.77	17.52	17.23	17.97	18.44	18.50	19.25	18.96	19.70	20.17
	12H	16.94	17.61	17.42	18.09	18.56	18.56	19.23	19.04	19.71	20.19
8H	4H	16.24	17.00	16.71	17.44	17.91	18.22	18.98	18.69	19.42	19.89
	6H	17.04	17.66	17.53	18.15	18.63	18.64	19.26	19.13	19.75	20.23
	8H	17.36	17.92	17.87	18.43	18.92	18.79	19.35	19.30	19.86	20.35
	12H	17.62	18.12	18.13	18.61	19.17	18.91	19.41	19.42	19.90	20.46
12H	4H	16.27	16.94	16.75	17.42	17.89	18.23	18.90	18.71	19.38	19.85
	6H	17.10	17.66	17.61	18.17	18.66	18.66	19.22	19.17	19.73	20.22
	8H	17.48	17.98	18.00	18.47	19.04	18.86	19.35	19.37	19.85	20.41