

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



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060727

Luminaire Tested: S124RDR-H1195D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060727
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

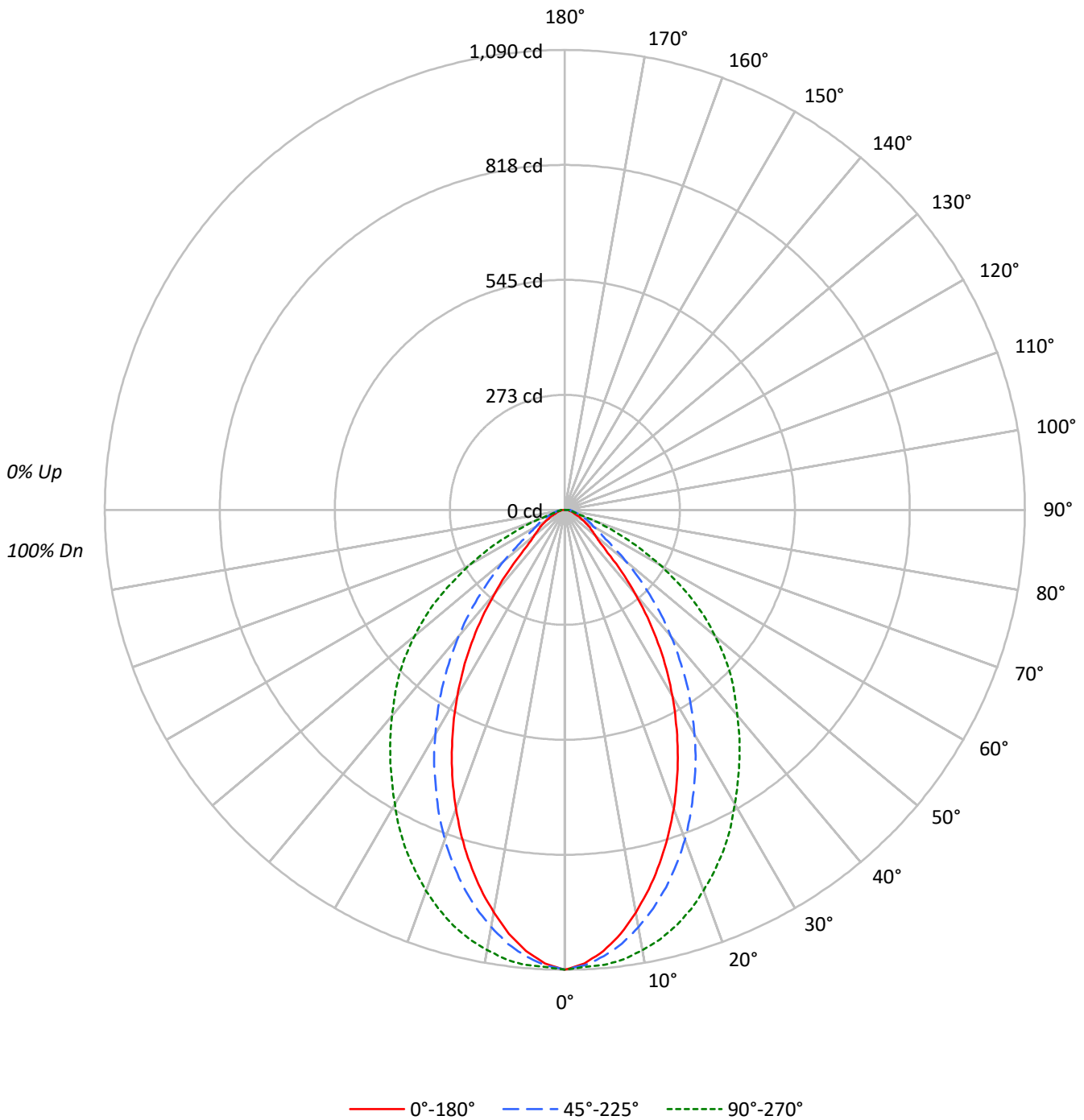
Lumens per Lamp: N/A
Luminaire Lumens: 1532.2 lumens
Efficiency: N/A
Efficacy: 42.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9384	9384	9384
5°	9072	9179	9359
10°	8473	8776	9262
15°	7736	8256	9096
20°	6911	7622	8804
25°	6020	6876	8456
30°	5073	6106	8009
35°	4051	5290	7578
40°	2914	4394	7153
45°	1756	3461	6770
50°	1263	2508	6221
55°	1061	1686	5516
60°	859	1336	4442
65°	679	1214	3193
70°	594	1012	1710
75°	552	922	832
80°	550	962	754
85°	820	1373	958

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6770 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.0	6.5
10°-20°	262.1	17.1
20°-30°	340.1	22.2
30°-40°	326.9	21.3
40°-50°	242.5	15.8
50°-60°	148.6	9.7
60°-70°	72.2	4.7
70°-80°	27.5	1.8
80°-90°	12.3	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°	702.2	45.8
0°-40°	1029.1	67.2
0°-60°	1420.2	92.7
0°-90°	1532.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1532.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1090	1090	1090	1090	1090	
5°	1050	1065	1062	1072	1083	98
15°	868	893	926	982	1020	242
25°	634	665	724	817	890	290
35°	385	420	503	622	721	239
45°	144	180	284	434	556	120
55°	71	74	112	254	367	63
65°	33	36	60	94	157	34
75°	17	26	28	25	25	18
85°	8	14	14	12	10	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1089.7	1089.7	1089.7	1089.7	1089.7
2.5°	1075.8	1088.3	1080.0	1082.7	1084.1
5°	1049.5	1064.7	1061.9	1071.6	1082.7
7.5°	1013.4	1031.4	1037.0	1056.4	1074.4
10°	969.0	991.2	1003.7	1035.6	1059.2
12.5°	920.5	944.1	967.7	1010.6	1042.5
15°	867.8	892.8	926.1	981.5	1020.3
17.5°	812.4	840.1	880.3	946.9	992.6
20°	754.2	783.3	831.8	905.3	960.7
22.5°	694.6	725.1	779.1	860.9	926.1
25°	633.6	665.4	723.7	816.6	890.0
27.5°	571.2	604.4	671.0	769.4	849.8
30°	510.2	542.1	614.1	720.9	805.5
32.5°	447.8	481.1	558.7	671.0	762.5
35°	385.4	420.1	503.2	622.5	720.9
37.5°	321.6	359.1	446.4	575.3	679.3
40°	259.2	295.3	390.9	526.8	636.3
42.5°	198.2	237.1	338.3	478.3	596.1
45°	144.2	180.2	284.2	433.9	555.9
47.5°	108.1	130.3	234.3	392.3	511.6
50°	94.3	98.4	187.2	346.6	464.4
52.5°	81.8	84.6	145.6	296.7	417.3
55°	70.7	73.5	112.3	253.7	367.4
57.5°	59.6	62.4	90.1	212.1	310.5
60°	49.9	52.7	77.6	169.1	257.9
62.5°	41.6	43.0	69.3	128.9	206.6
65°	33.3	36.0	59.6	94.3	156.7
67.5°	27.7	30.5	48.5	65.2	109.5
70°	23.6	30.5	40.2	45.7	67.9
72.5°	19.4	27.7	33.3	31.9	31.9
75°	16.6	26.3	27.7	25.0	25.0
77.5°	13.9	23.6	22.2	20.8	19.4
80°	11.1	19.4	19.4	16.6	15.2
82.5°	9.7	15.2	15.2	15.2	12.5
85°	8.3	13.9	13.9	12.5	9.7
87.5°	5.5	11.1	12.5	11.1	6.9
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	7.59	8.93	7.96	9.24	9.56	16.69	18.03	17.06	18.34	18.66
	3H	8.64	9.83	9.02	10.15	10.52	17.19	18.38	17.57	18.71	19.07
	4H	9.15	10.26	9.55	10.61	10.99	17.21	18.31	17.61	18.66	19.05
	6H	9.60	10.62	10.02	10.99	11.38	17.21	18.22	17.62	18.59	18.99
	8H	9.79	10.76	10.22	11.15	11.55	17.20	18.17	17.63	18.56	18.96
	12H	10.01	10.93	10.44	11.31	11.74	17.20	18.12	17.63	18.51	18.94
4H	2H	8.69	9.79	9.09	10.14	10.53	16.58	17.69	16.98	18.04	18.42
	3H	9.96	10.86	10.37	11.27	11.67	17.16	18.06	17.57	18.47	18.87
	4H	10.66	11.47	11.10	11.89	12.33	17.21	18.01	17.64	18.43	18.88
	6H	11.29	11.99	11.76	12.44	12.90	17.26	17.96	17.72	18.40	18.87
	8H	11.54	12.19	12.01	12.64	13.11	17.27	17.93	17.74	18.37	18.85
	12H	11.81	12.39	12.30	12.87	13.35	17.31	17.89	17.79	18.37	18.84
8H	4H	11.09	11.74	11.56	12.19	12.66	17.15	17.81	17.62	18.25	18.73
	6H	11.97	12.50	12.47	13.00	13.48	17.25	17.78	17.75	18.28	18.76
	8H	12.37	12.85	12.89	13.37	13.86	17.31	17.79	17.83	18.30	18.80
	12H	12.85	13.27	13.36	13.77	14.34	17.41	17.83	17.92	18.33	18.90
12H	4H	11.13	11.71	11.62	12.19	12.67	17.13	17.70	17.61	18.19	18.66
	6H	12.08	12.56	12.60	13.07	13.57	17.23	17.71	17.75	18.22	18.71
	8H	12.59	13.02	13.11	13.51	14.08	17.33	17.76	17.85	18.25	18.82