

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: P1060733

Luminaire Tested: S124RDR-H1195D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060733
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: S124RDR-H1195D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

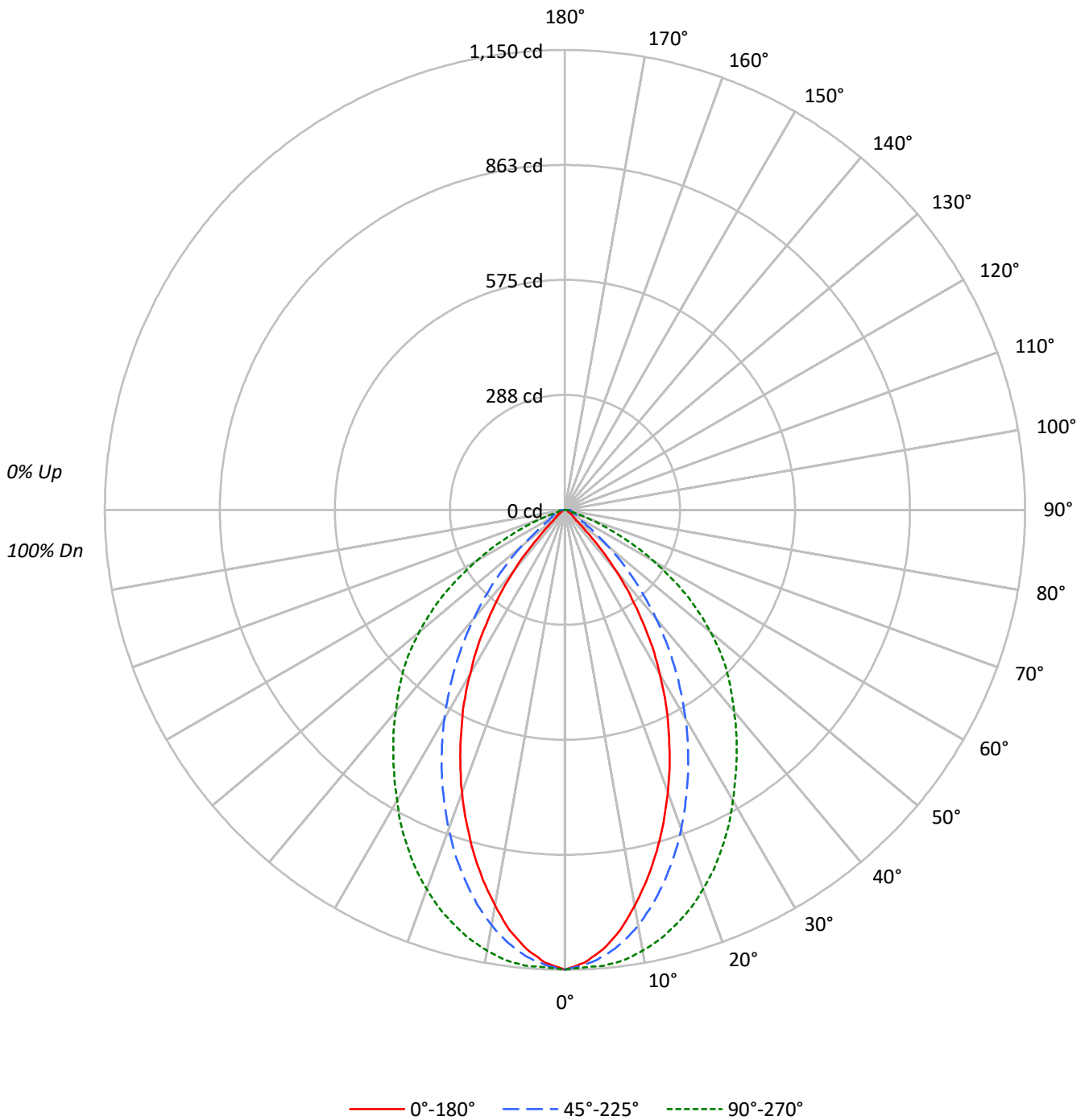
Lumens per Lamp: N/A
Luminaire Lumens: 1442.9 lumens
Efficiency: N/A
Efficacy: 39.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9900	9900	9900
5°	9530	9687	9885
10°	8788	9228	9786
15°	7887	8566	9570
20°	6893	7786	9252
25°	5831	6916	8840
30°	4709	5996	8342
35°	3506	5010	7860
40°	2226	3971	7394
45°	890	2912	6973
50°	387	1857	6365
55°	297	961	5555
60°	210	656	4405
65°	155	652	3009
70°	154	574	1380
75°	203	609	559
80°	302	679	605
85°	603	1205	899

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6973 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.2	7.3
10°-20°	271.5	18.8
20°-30°	342.8	23.8
30°-40°	314.9	21.8
40°-50°	214.7	14.9
50°-60°	116.4	8.1
60°-70°	49.4	3.4
70°-80°	17.1	1.2
80°-90°	10.9	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°	719.5	49.9
0°-40°	1034.4	71.7
0°-60°	1365.6	94.6
0°-90°	1442.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1442.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1150	1150	1150	1150	1150	
5°	1102	1119	1121	1130	1144	102
15°	885	914	961	1029	1074	246
25°	614	653	728	841	930	281
35°	334	378	477	626	748	207
45°	73	117	239	423	573	67
55°	20	21	64	233	370	18
65°	8	9	32	73	148	8
75°	6	17	18	17	17	6
85°	6	12	12	12	9	5
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1149.7	1149.7	1149.7	1149.7	1149.7
2.5°	1132.9	1146.6	1139.0	1142.1	1145.1
5°	1102.5	1119.2	1120.7	1129.9	1143.6
7.5°	1059.8	1079.6	1091.8	1114.6	1136.0
10°	1005.0	1029.4	1055.3	1091.8	1119.2
12.5°	947.1	973.0	1011.1	1062.9	1099.4
15°	884.7	913.6	960.9	1029.4	1073.5
17.5°	819.2	851.2	907.6	988.3	1044.6
20°	752.2	787.3	849.7	941.1	1009.6
22.5°	683.7	720.3	788.8	892.3	973.0
25°	613.7	653.3	727.9	840.6	930.4
27.5°	546.7	583.2	665.4	788.8	887.8
30°	473.6	514.7	603.0	735.5	839.0
32.5°	406.6	446.2	539.1	680.7	793.4
35°	333.5	377.6	476.6	625.8	747.7
37.5°	265.0	307.6	415.7	574.1	703.5
40°	198.0	242.1	353.3	522.3	657.8
42.5°	132.5	179.7	293.9	469.0	615.2
45°	73.1	117.3	239.1	423.3	572.6
47.5°	38.1	64.0	187.3	377.6	526.9
50°	28.9	35.0	138.6	327.4	475.1
52.5°	24.4	25.9	94.4	277.1	423.3
55°	19.8	21.3	64.0	233.0	370.0
57.5°	15.2	16.8	45.7	190.3	310.6
60°	12.2	13.7	38.1	146.2	255.8
62.5°	9.1	10.7	36.5	108.1	201.0
65°	7.6	9.1	32.0	73.1	147.7
67.5°	6.1	9.1	27.4	47.2	99.0
70°	6.1	12.2	22.8	30.5	54.8
72.5°	6.1	13.7	19.8	19.8	19.8
75°	6.1	16.8	18.3	16.8	16.8
77.5°	6.1	15.2	15.2	15.2	15.2
80°	6.1	13.7	13.7	13.7	12.2
82.5°	6.1	12.2	13.7	13.7	10.7
85°	6.1	12.2	12.2	12.2	9.1
87.5°	4.6	12.2	12.2	12.2	6.1
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	0.00	0.00	0.00	0.27	0.59	16.41	17.68	16.77	17.99	18.31
	3H	0.00	1.06	0.31	1.39	1.76	16.76	17.89	17.14	18.22	18.59
	4H	1.32	2.36	1.72	2.72	3.10	16.73	17.78	17.13	18.13	18.51
	6H	2.68	3.64	3.10	4.01	4.41	16.70	17.67	17.12	18.04	18.43
	8H	3.36	4.27	3.79	4.66	5.07	16.69	17.60	17.12	17.99	18.40
	12H	4.16	5.03	4.60	5.42	5.85	16.69	17.56	17.12	17.94	18.37
4H	2H	2.11	3.16	2.52	3.51	3.90	16.21	17.26	16.61	17.61	17.99
	3H	3.53	4.39	3.94	4.79	5.19	16.60	17.46	17.02	17.86	18.27
	4H	4.99	5.75	5.42	6.17	6.61	16.58	17.35	17.02	17.77	18.21
	6H	6.23	6.89	6.69	7.33	7.80	16.60	17.26	17.07	17.71	18.18
	8H	6.80	7.41	7.27	7.86	8.33	16.61	17.23	17.08	17.68	18.15
	12H	7.47	8.02	7.96	8.50	8.97	16.65	17.19	17.14	17.68	18.15
8H	4H	6.06	6.67	6.53	7.12	7.59	16.48	17.10	16.95	17.55	18.02
	6H	7.67	8.17	8.17	8.67	9.15	16.53	17.04	17.04	17.53	18.02
	8H	8.50	8.95	9.02	9.47	9.96	16.59	17.04	17.12	17.56	18.05
	12H	9.47	9.87	9.98	10.36	10.94	16.71	17.11	17.22	17.60	18.18
12H	4H	6.25	6.79	6.73	7.27	7.75	16.45	16.99	16.93	17.47	17.95
	6H	8.01	8.46	8.53	8.98	9.47	16.50	16.95	17.03	17.47	17.96
	8H	9.03	9.43	9.55	9.93	10.50	16.61	17.01	17.12	17.50	18.07