

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: P1060736

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060736
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-H1195D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

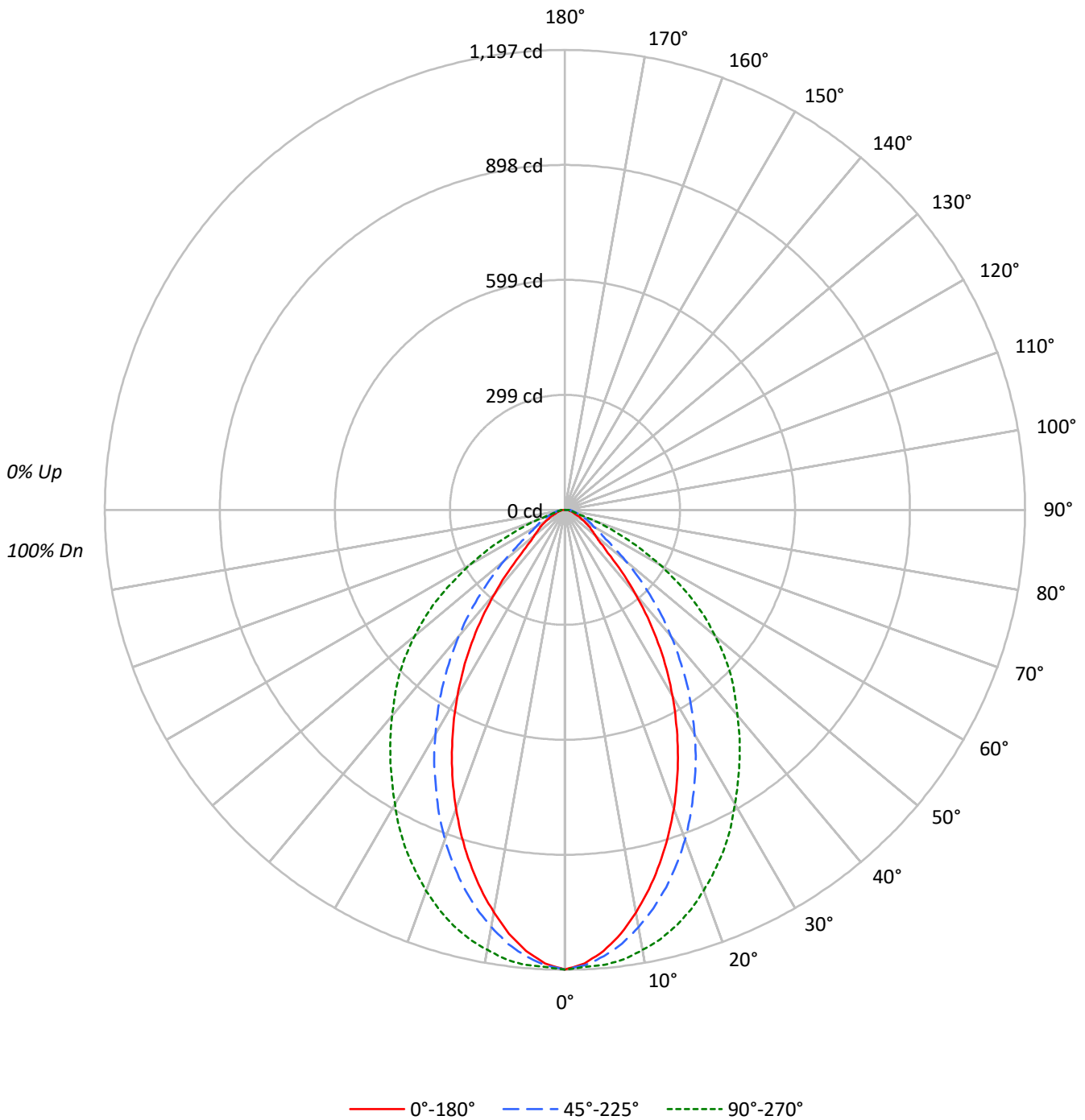
Lumens per Lamp: N/A
Luminaire Lumens: 1682.6 lumens
Efficiency: N/A
Efficacy: 46.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10304	10304	10304
5°	9962	10081	10278
10°	9305	9638	10170
15°	8496	9066	9989
20°	7589	8371	9668
25°	6610	7551	9287
30°	5571	6706	8795
35°	4449	5809	8323
40°	3200	4826	7855
45°	1928	3801	7435
50°	1387	2753	6832
55°	1165	1851	6056
60°	944	1469	4877
65°	744	1335	3505
70°	652	1113	1878
75°	609	1011	912
80°	605	1056	828
85°	899	1502	1057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7435 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	6.5
10°-20°	287.8	17.1
20°-30°	373.5	22.2
30°-40°	359.0	21.3
40°-50°	266.3	15.8
50°-60°	163.1	9.7
60°-70°	79.3	4.7
70°-80°	30.2	1.8
80°-90°	13.5	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°	771.1	45.8
0°-40°	1130.1	67.2
0°-60°	1559.6	92.7
0°-90°	1682.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1682.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1197	1197	1197	1197	1197	
5°	1152	1169	1166	1177	1189	107
15°	953	980	1017	1078	1120	266
25°	696	731	795	897	977	318
35°	423	461	553	684	792	262
45°	158	198	312	476	610	131
55°	78	81	123	279	403	70
65°	36	40	66	104	172	38
75°	18	29	30	27	27	19
85°	9	15	15	14	11	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1196.6	1196.6	1196.6	1196.6	1196.6
2.5°	1181.4	1195.1	1186.0	1189.0	1190.5
5°	1152.5	1169.2	1166.2	1176.8	1189.0
7.5°	1112.9	1132.7	1138.8	1160.1	1179.9
10°	1064.2	1088.5	1102.2	1137.3	1163.1
12.5°	1010.9	1036.8	1062.7	1109.8	1144.9
15°	953.0	980.4	1017.0	1077.9	1120.5
17.5°	892.1	922.6	966.7	1039.8	1090.1
20°	828.2	860.2	913.5	994.1	1055.0
22.5°	762.7	796.2	855.6	945.4	1017.0
25°	695.7	730.8	794.7	896.7	977.4
27.5°	627.2	663.8	736.9	844.9	933.2
30°	560.3	595.3	674.4	791.7	884.5
32.5°	491.7	528.3	613.5	736.9	837.3
35°	423.2	461.3	552.6	683.6	791.7
37.5°	353.2	394.3	490.2	631.8	746.0
40°	284.7	324.3	429.3	578.5	698.8
42.5°	217.7	260.3	371.5	525.2	654.6
45°	158.3	197.9	312.1	476.5	610.5
47.5°	118.7	143.1	257.3	430.8	561.8
50°	103.5	108.1	205.5	380.6	510.0
52.5°	89.8	92.9	159.9	325.8	458.2
55°	77.6	80.7	123.3	278.6	403.4
57.5°	65.5	68.5	99.0	232.9	341.0
60°	54.8	57.9	85.3	185.7	283.2
62.5°	45.7	47.2	76.1	141.6	226.8
65°	36.5	39.6	65.5	103.5	172.0
67.5°	30.4	33.5	53.3	71.6	120.3
70°	25.9	33.5	44.2	50.2	74.6
72.5°	21.3	30.4	36.5	35.0	35.0
75°	18.3	28.9	30.4	27.4	27.4
77.5°	15.2	25.9	24.4	22.8	21.3
80°	12.2	21.3	21.3	18.3	16.7
82.5°	10.7	16.7	16.7	16.7	13.7
85°	9.1	15.2	15.2	13.7	10.7
87.5°	6.1	12.2	13.7	12.2	7.6
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	7.92	9.26	8.28	9.57	9.88	17.02	18.35	17.38	18.67	18.98
	3H	8.96	10.15	9.34	10.48	10.84	17.52	18.71	17.90	19.04	19.40
	4H	9.48	10.58	9.88	10.93	11.32	17.53	18.64	17.93	18.99	19.37
	6H	9.93	10.94	10.34	11.31	11.71	17.53	18.55	17.94	18.92	19.31
	8H	10.12	11.08	10.55	11.47	11.88	17.53	18.49	17.96	18.88	19.29
	12H	10.33	11.25	10.76	11.64	12.07	17.53	18.45	17.96	18.83	19.26
4H	2H	9.01	10.12	9.42	10.47	10.85	16.91	18.01	17.31	18.36	18.75
	3H	10.28	11.19	10.70	11.59	12.00	17.48	18.39	17.90	18.79	19.20
	4H	10.99	11.80	11.42	12.22	12.66	17.53	18.34	17.97	18.76	19.20
	6H	11.62	12.32	12.08	12.76	13.23	17.58	18.28	18.05	18.73	19.19
	8H	11.86	12.52	12.33	12.96	13.43	17.60	18.25	18.07	18.70	19.17
	12H	12.14	12.72	12.62	13.20	13.67	17.63	18.21	18.12	18.69	19.17
8H	4H	11.41	12.07	11.88	12.51	12.98	17.48	18.13	17.95	18.58	19.05
	6H	12.29	12.83	12.79	13.32	13.80	17.57	18.11	18.08	18.60	19.09
	8H	12.70	13.18	13.22	13.69	14.18	17.63	18.11	18.15	18.63	19.12
	12H	13.17	13.60	13.69	14.09	14.66	17.73	18.16	18.25	18.65	19.22
12H	4H	11.46	12.04	11.94	12.52	12.99	17.45	18.03	17.94	18.51	18.99
	6H	12.40	12.88	12.92	13.40	13.89	17.55	18.03	18.07	18.55	19.04
	8H	12.92	13.34	13.43	13.84	14.41	17.66	18.08	18.17	18.58	19.15