

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: P1059459

Luminaire Tested: S123RDR-H1000D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D930-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

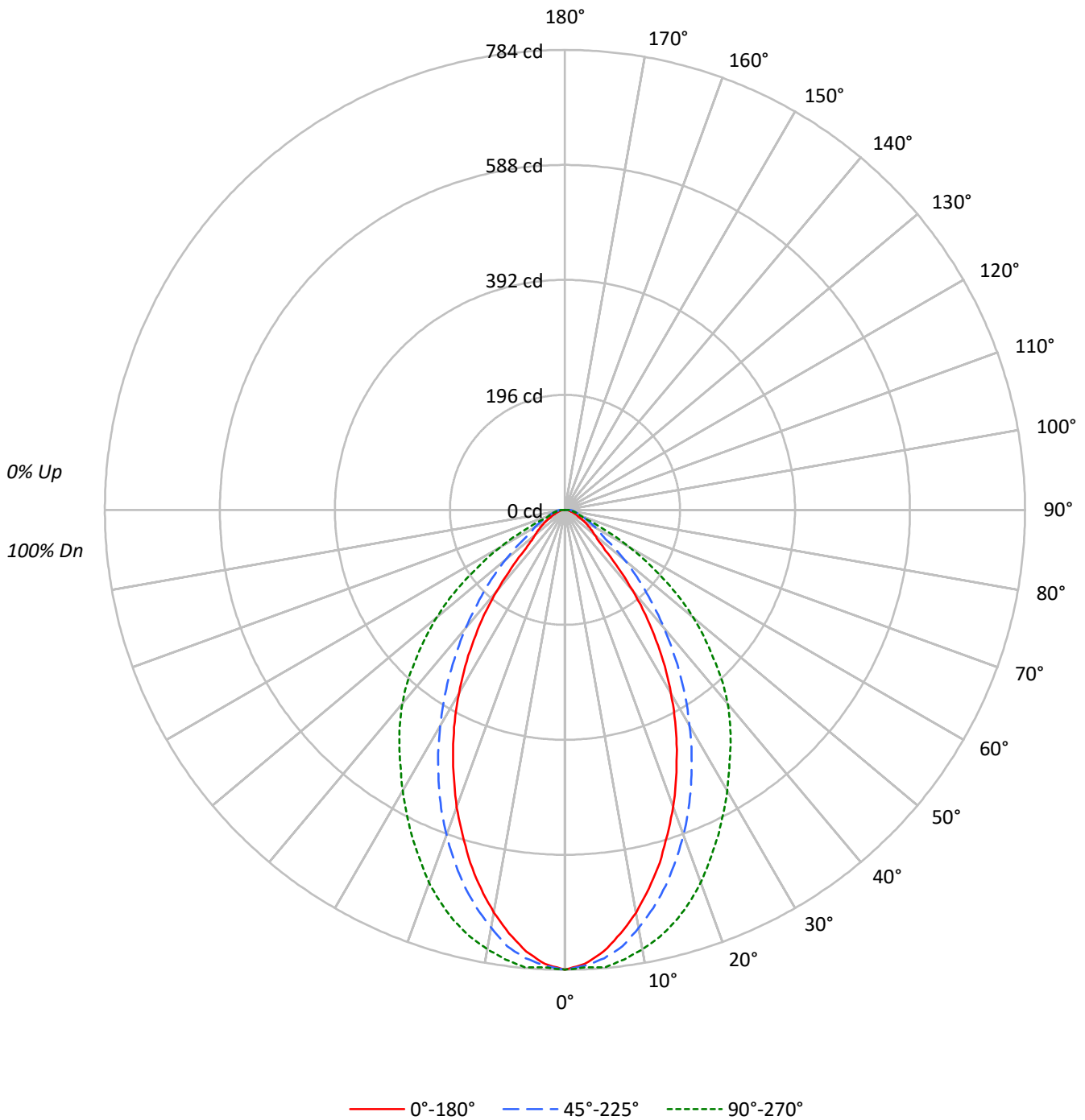
Lumens per Lamp: N/A
Luminaire Lumens: 1052.2 lumens
Efficiency: N/A
Efficacy: 33.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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

TEST NUMBER: P1059459

CATALOG NUMBER: S123RDR-H1000D930-X4F0-XX-UDD-SVL-W

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	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9204	9204	9204
5°	8906	9044	9228
10°	8313	8627	9068
15°	7576	8061	8831
20°	6740	7374	8456
25°	5841	6599	7973
30°	4898	5756	7499
35°	3880	4900	7048
40°	2747	4030	6613
45°	1617	3185	5950
50°	1209	2419	5212
55°	1017	1634	4187
60°	824	1395	2973
65°	650	1189	1570
70°	570	1037	968
75°	531	971	926
80°	527	1055	920
85°	660	1576	1186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5950 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.1	6.9
10°-20°	187.5	17.8
20°-30°	238.8	22.7
30°-40°	224.6	21.3
40°-50°	161.7	15.4
50°-60°	93.4	8.9
60°-70°	42.7	4.1
70°-80°	21.3	2.0
80°-90°	10.1	1.0
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°	498.4	47.4
0°-40°	723.0	68.7
0°-60°	978.1	93.0
0°-90°	1052.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1052.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	784	784	784	784	784	
5°	756	768	767	775	783	70
15°	623	646	663	700	726	174
25°	451	474	509	566	615	206
35°	271	294	342	421	492	168
45°	97	122	192	288	358	82
55°	50	52	80	152	204	45
65°	23	33	43	48	56	24
75°	12	22	21	20	20	12
85°	5	11	12	11	9	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	783.8	783.8	783.8	783.8	783.8
2.5°	775.1	784.8	778.0	779.0	780.9
5°	755.6	768.3	767.3	775.1	782.9
7.5°	728.3	742.9	750.7	762.4	773.1
10°	697.2	713.7	723.5	744.9	760.5
12.5°	661.1	682.6	695.2	723.5	745.9
15°	623.2	645.6	663.1	700.1	726.4
17.5°	580.3	604.7	627.1	670.9	703.0
20°	539.4	562.8	590.1	637.8	676.7
22.5°	494.6	520.0	551.1	601.8	645.6
25°	450.8	474.2	509.3	565.7	615.4
27.5°	407.0	430.4	467.4	529.7	584.2
30°	361.2	385.6	424.5	493.7	553.1
32.5°	316.5	339.8	383.6	458.6	520.9
35°	270.7	294.1	341.8	420.6	491.7
37.5°	225.9	250.2	300.9	389.5	462.5
40°	179.2	205.5	262.9	357.4	431.4
42.5°	135.3	163.6	224.9	324.2	397.3
45°	97.4	121.7	191.8	288.2	358.3
47.5°	75.9	88.6	161.6	251.2	322.3
50°	66.2	68.2	132.4	217.1	285.3
52.5°	57.4	59.4	104.2	185.0	246.3
55°	49.7	51.6	79.8	151.9	204.5
57.5°	41.9	44.8	66.2	120.7	164.6
60°	35.1	38.9	59.4	92.5	126.6
62.5°	28.2	35.1	50.6	68.2	90.6
65°	23.4	33.1	42.8	47.7	56.5
67.5°	19.5	30.2	36.0	34.1	33.1
70°	16.6	27.3	30.2	27.3	28.2
72.5°	13.6	25.3	25.3	23.4	23.4
75°	11.7	22.4	21.4	20.4	20.4
77.5°	9.7	19.5	18.5	17.5	16.6
80°	7.8	15.6	15.6	14.6	13.6
82.5°	6.8	12.7	12.7	12.7	10.7
85°	4.9	10.7	11.7	10.7	8.8
87.5°	3.9	9.7	9.7	8.8	5.8
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	7.68	9.00	8.05	9.32	9.63	15.04	16.36	15.41	16.68	16.99
	3H	9.08	10.25	9.45	10.58	10.94	15.27	16.44	15.65	16.77	17.14
	4H	9.63	10.72	10.03	11.07	11.45	15.39	16.48	15.79	16.83	17.21
	6H	10.06	11.06	10.48	11.43	11.83	15.50	16.51	15.92	16.88	17.27
	8H	10.24	11.19	10.67	11.58	11.98	15.56	16.50	15.99	16.90	17.30
	12H	10.39	11.30	10.83	11.68	12.11	15.62	16.52	16.05	16.91	17.34
4H	2H	8.78	9.87	9.18	10.22	10.61	15.00	16.09	15.40	16.44	16.83
	3H	10.45	11.34	10.86	11.74	12.15	15.36	16.26	15.78	16.66	17.06
	4H	11.26	12.06	11.69	12.48	12.92	15.56	16.36	15.99	16.78	17.22
	6H	11.89	12.58	12.35	13.03	13.50	15.79	16.48	16.25	16.92	17.39
	8H	12.13	12.77	12.60	13.22	13.69	15.89	16.54	16.36	16.98	17.45
	12H	12.34	12.91	12.83	13.40	13.87	16.02	16.59	16.51	17.07	17.55
8H	4H	11.70	12.34	12.17	12.79	13.26	15.60	16.24	16.07	16.69	17.16
	6H	12.61	13.14	13.11	13.64	14.12	15.92	16.45	16.43	16.95	17.43
	8H	13.03	13.51	13.55	14.02	14.51	16.12	16.59	16.64	17.11	17.60
	12H	13.45	13.87	13.96	14.37	14.94	16.37	16.79	16.88	17.28	17.85
12H	4H	11.76	12.33	12.24	12.81	13.28	15.59	16.16	16.07	16.64	17.11
	6H	12.74	13.22	13.27	13.74	14.23	15.94	16.42	16.46	16.93	17.43
	8H	13.29	13.71	13.80	14.20	14.77	16.20	16.62	16.71	17.12	17.69