

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: P1060674

Luminaire Tested: S124RDR-H1020D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060674
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D930-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 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

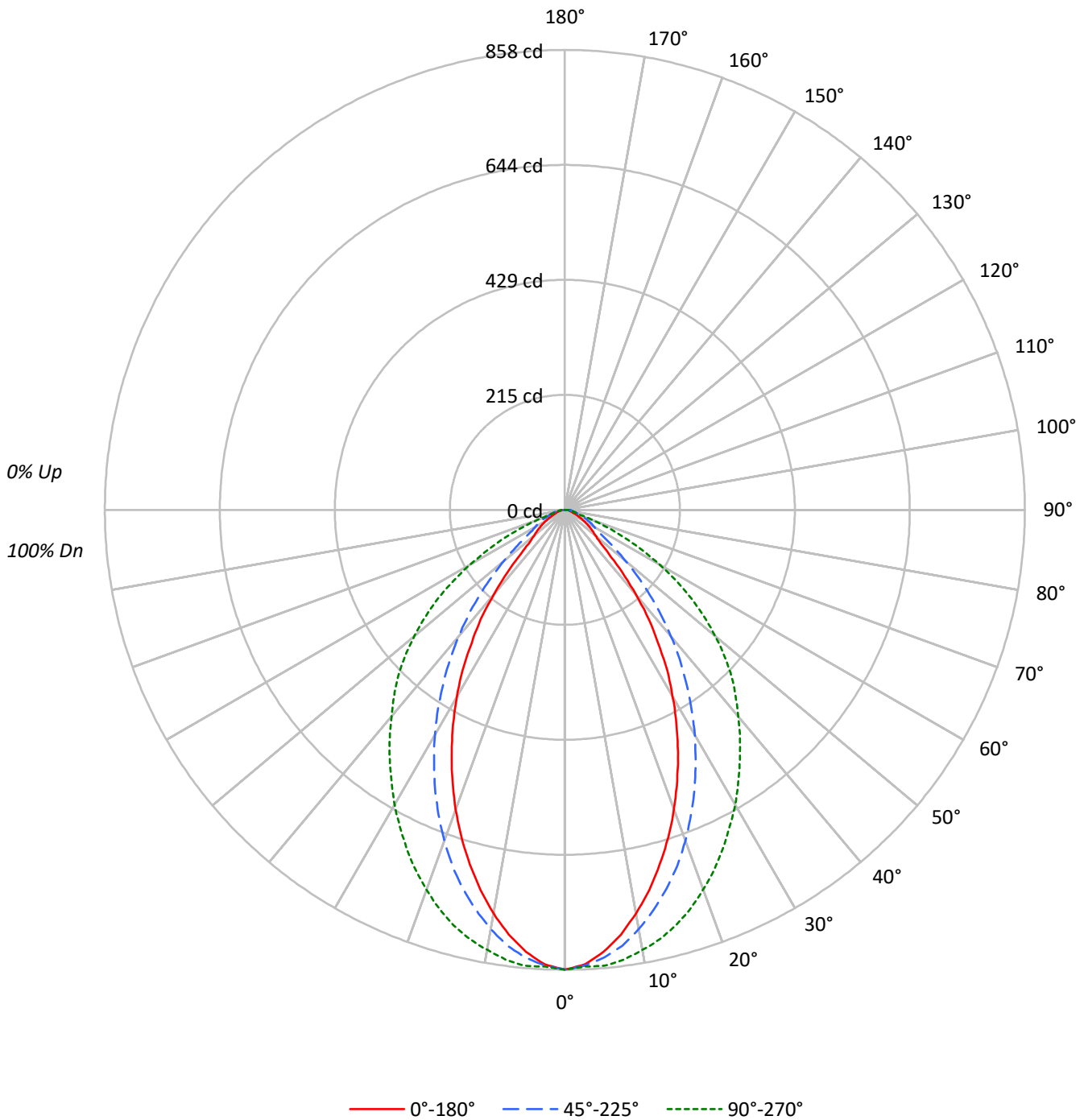
Lumens per Lamp: N/A
Luminaire Lumens: 1213.8 lumens
Efficiency: N/A
Efficacy: 38.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1060674

CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot



TEST NUMBER: P1060674

CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-SVL-W

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	104	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	66	75	70	66	73	68	65	63			63	
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57			57	
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51			51	
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43	
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7386	7386	7386
5°	7157	7248	7380
10°	6687	6946	7290
15°	6100	6527	7151
20°	5453	6024	6911
25°	4744	5444	6628
30°	4002	4821	6317
35°	3183	4150	5984
40°	2316	3458	5655
45°	1400	2730	5356
50°	1001	1977	4904
55°	848	1338	4330
60°	692	1088	3500
65°	546	976	2518
70°	458	821	1327
75°	416	765	669
80°	426	759	664
85°	563	1136	761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5356 cd/sqm



TEST NUMBER: P1060674

CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.0	6.5
10°-20°	206.9	17.0
20°-30°	268.3	22.1
30°-40°	258.3	21.3
40°-50°	192.2	15.8
50°-60°	118.2	9.7
60°-70°	58.0	4.8
70°-80°	22.6	1.9
80°-90°	10.3	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°	554.2	45.7
0°-40°	812.5	66.9
0°-60°	1122.9	92.5
0°-90°	1213.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1213.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	858	858	858	858	858	
5°	828	840	838	846	854	77
15°	684	706	732	776	802	191
25°	499	526	573	645	698	228
35°	303	332	395	494	569	189
45°	115	143	224	346	440	95
55°	56	58	89	203	288	51
65°	27	29	48	77	124	28
75°	12	22	23	21	20	14
85°	6	10	12	12	8	6
90°	0	0	0	0	0	

TEST NUMBER: P1060674

CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	857.7	857.7	857.7	857.7	857.7
2.5°	849.0	858.6	850.9	851.9	852.9
5°	828.0	840.4	838.5	846.2	853.8
7.5°	799.2	813.6	820.3	835.6	846.2
10°	764.7	781.0	794.4	819.3	833.7
12.5°	726.4	745.5	764.7	798.2	820.3
15°	684.2	706.2	732.1	776.2	802.1
17.5°	641.1	663.1	696.7	747.5	780.0
20°	595.1	619.0	657.4	713.9	754.2
22.5°	547.2	573.0	615.2	679.4	727.3
25°	499.3	526.1	573.0	644.9	697.6
27.5°	451.3	477.2	528.0	608.5	666.0
30°	402.5	429.3	484.9	569.2	635.3
32.5°	355.5	380.4	439.8	531.8	601.8
35°	302.8	331.6	394.8	493.5	569.2
37.5°	257.8	283.6	351.7	455.2	536.6
40°	206.0	234.8	307.6	417.8	503.1
42.5°	158.1	186.9	265.4	380.4	471.5
45°	115.0	142.8	224.2	345.9	439.8
47.5°	87.2	103.5	184.0	312.4	404.4
50°	74.7	79.5	147.6	276.0	366.1
52.5°	66.1	68.0	115.0	239.6	327.7
55°	56.5	58.5	89.1	203.2	288.4
57.5°	47.9	48.9	71.9	168.7	246.3
60°	40.2	41.2	63.2	135.1	203.2
62.5°	33.5	34.5	56.5	104.5	161.9
65°	26.8	28.7	47.9	76.7	123.6
67.5°	22.0	25.9	40.2	53.7	86.2
70°	18.2	24.9	32.6	37.4	52.7
72.5°	15.3	23.0	27.8	26.8	25.9
75°	12.5	22.0	23.0	21.1	20.1
77.5°	10.5	19.2	19.2	17.2	16.3
80°	8.6	15.3	15.3	15.3	13.4
82.5°	7.7	12.5	13.4	13.4	10.5
85°	5.7	10.5	11.5	11.5	7.7
87.5°	3.8	9.6	10.5	9.6	5.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060674
 CATALOG NUMBER: S124RDR-H1020D930-X4F0-XX-UDD-SVL-W

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	6.73	8.08	7.10	8.39	8.70	15.90	17.24	16.27	17.56	17.87
	3H	7.84	9.03	8.22	9.36	9.73	16.41	17.60	16.79	17.93	18.29
	4H	8.36	9.47	8.76	9.82	10.20	16.43	17.54	16.83	17.89	18.27
	6H	8.79	9.81	9.21	10.18	10.58	16.44	17.46	16.85	17.83	18.22
	8H	8.98	9.95	9.41	10.34	10.75	16.44	17.41	16.87	17.80	18.20
	12H	9.16	10.09	9.60	10.47	10.90	16.44	17.37	16.88	17.75	18.18
4H	2H	7.88	8.99	8.28	9.34	9.72	15.79	16.90	16.20	17.25	17.64
	3H	9.22	10.13	9.63	10.53	10.93	16.38	17.29	16.79	17.69	18.10
	4H	9.95	10.76	10.39	11.18	11.63	16.44	17.25	16.88	17.67	18.12
	6H	10.56	11.26	11.02	11.71	12.17	16.52	17.22	16.98	17.66	18.13
	8H	10.80	11.46	11.27	11.91	12.38	16.55	17.20	17.01	17.65	18.12
	12H	11.04	11.62	11.52	12.10	12.58	16.59	17.17	17.07	17.65	18.12
8H	4H	10.42	11.08	10.89	11.52	11.99	16.40	17.06	16.87	17.50	17.97
	6H	11.27	11.80	11.77	12.30	12.78	16.53	17.06	17.03	17.56	18.04
	8H	11.67	12.16	12.20	12.67	13.16	16.61	17.09	17.13	17.61	18.10
	12H	12.10	12.52	12.61	13.02	13.59	16.73	17.16	17.24	17.65	18.22
12H	4H	10.47	11.05	10.96	11.54	12.01	16.37	16.95	16.86	17.44	17.91
	6H	11.40	11.88	11.92	12.40	12.89	16.51	16.99	17.03	17.51	18.00
	8H	11.92	12.35	12.44	12.85	13.42	16.64	17.07	17.15	17.56	18.13