

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: P1060673

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060673
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-H1020D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

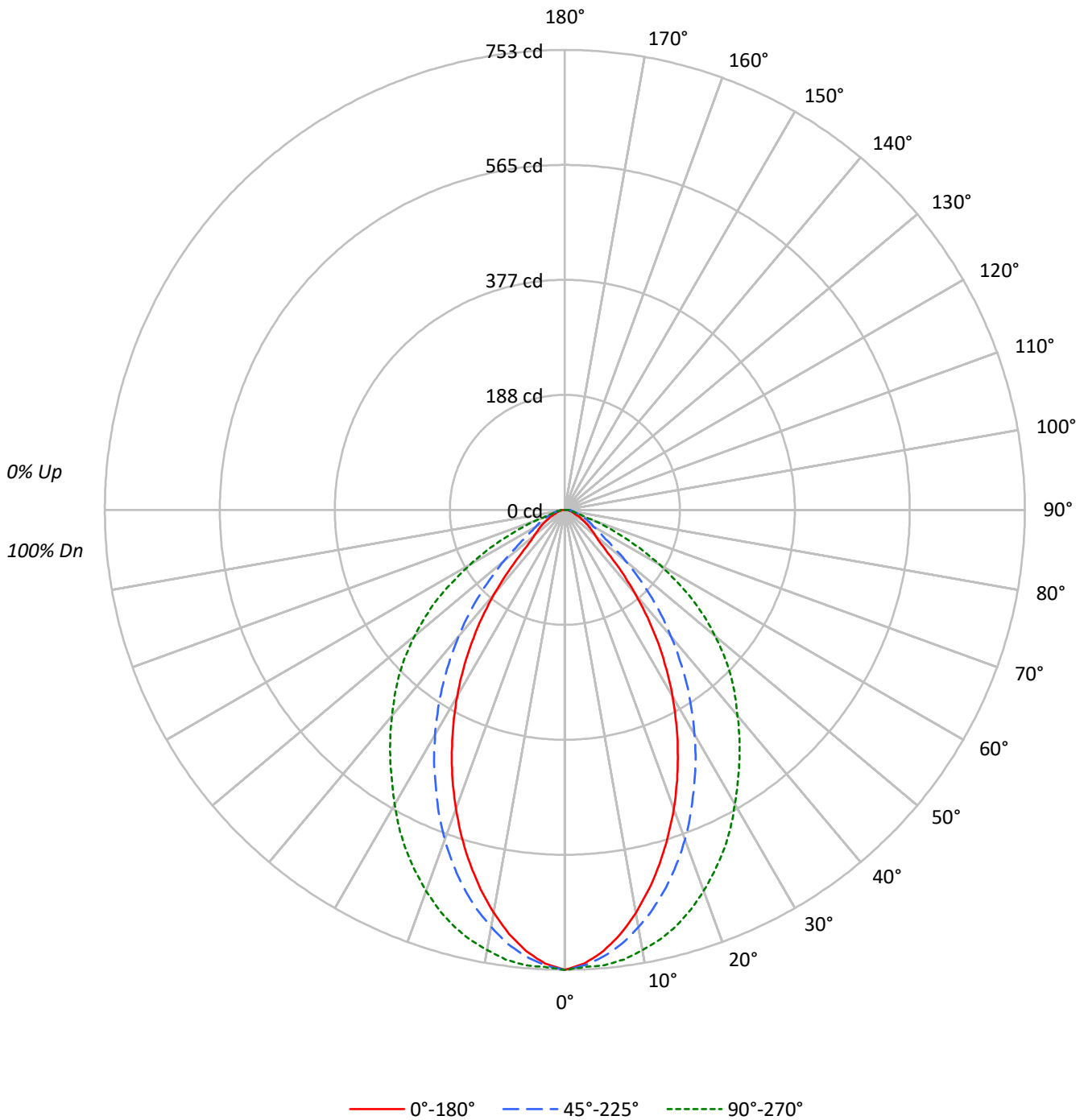
Lumens per Lamp: N/A
Luminaire Lumens: 1058.9 lumens
Efficiency: N/A
Efficacy: 33.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

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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	50	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°	6485	6485	6485
5°	6270	6344	6468
10°	5856	6066	6401
15°	5347	5706	6287
20°	4776	5268	6085
25°	4160	4752	5844
30°	3506	4220	5535
35°	2800	3656	5237
40°	2014	3037	4944
45°	1213	2392	4679
50°	873	1732	4300
55°	734	1165	3812
60°	594	925	3069
65°	469	839	2207
70°	410	700	1181
75°	383	639	572
80°	382	664	521
85°	563	948	662

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4679 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	6.5
10°-20°	181.1	17.1
20°-30°	235.0	22.2
30°-40°	225.9	21.3
40°-50°	167.6	15.8
50°-60°	102.7	9.7
60°-70°	49.9	4.7
70°-80°	19.0	1.8
80°-90°	8.5	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°	485.3	45.8
0°-40°	711.2	67.2
0°-60°	981.5	92.7
0°-90°	1058.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1058.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	725	736	734	741	748	67
15°	600	617	640	678	705	167
25°	438	460	500	564	615	200
35°	266	290	348	430	498	165
45°	100	125	196	300	384	83
55°	49	51	78	175	254	44
65°	23	25	41	65	108	24
75°	12	18	19	17	17	12
85°	6	10	10	9	7	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	753.1	753.1	753.1	753.1	753.1
2.5°	743.5	752.1	746.4	748.3	749.2
5°	725.3	735.8	733.9	740.6	748.3
7.5°	700.4	712.8	716.7	730.1	742.5
10°	669.7	685.0	693.7	715.7	732.0
12.5°	636.2	652.5	668.8	698.5	720.5
15°	599.8	617.0	640.0	678.3	705.2
17.5°	561.4	580.6	608.4	654.4	686.0
20°	521.2	541.3	574.9	625.6	664.0
22.5°	480.0	501.1	538.4	595.0	640.0
25°	437.8	459.9	500.1	564.3	615.1
27.5°	394.7	417.7	463.7	531.7	587.3
30°	352.6	374.6	424.4	498.2	556.7
32.5°	309.5	332.5	386.1	463.7	527.0
35°	266.4	290.3	347.8	430.2	498.2
37.5°	222.3	248.1	308.5	397.6	469.5
40°	179.2	204.1	270.2	364.1	439.8
42.5°	137.0	163.8	233.8	330.5	412.0
45°	99.6	124.6	196.4	299.9	384.2
47.5°	74.7	90.1	161.9	271.1	353.5
50°	65.2	68.0	129.3	239.5	321.0
52.5°	56.5	58.4	100.6	205.0	288.4
55°	48.9	50.8	77.6	175.3	253.9
57.5°	41.2	43.1	62.3	146.6	214.6
60°	34.5	36.4	53.7	116.9	178.2
62.5°	28.7	29.7	47.9	89.1	142.8
65°	23.0	24.9	41.2	65.2	108.3
67.5°	19.2	21.1	33.5	45.0	75.7
70°	16.3	21.1	27.8	31.6	46.9
72.5°	13.4	19.2	23.0	22.0	22.0
75°	11.5	18.2	19.2	17.2	17.2
77.5°	9.6	16.3	15.3	14.4	13.4
80°	7.7	13.4	13.4	11.5	10.5
82.5°	6.7	10.5	10.5	10.5	8.6
85°	5.7	9.6	9.6	8.6	6.7
87.5°	3.8	7.7	8.6	7.7	4.8
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	6.31	7.65	6.67	7.96	8.27	15.41	16.75	15.77	17.06	17.37
	3H	7.35	8.54	7.73	8.87	9.24	15.91	17.10	16.29	17.43	17.79
	4H	7.87	8.98	8.27	9.33	9.71	15.92	17.03	16.33	17.38	17.76
	6H	8.32	9.34	8.74	9.71	10.10	15.92	16.94	16.34	17.31	17.70
	8H	8.51	9.48	8.94	9.87	10.27	15.92	16.88	16.35	17.27	17.68
	12H	8.72	9.64	9.16	10.03	10.46	15.92	16.84	16.35	17.22	17.65
4H	2H	7.40	8.51	7.80	8.86	9.24	15.30	16.40	15.70	16.75	17.14
	3H	8.68	9.58	9.09	9.98	10.39	15.87	16.78	16.29	17.18	17.59
	4H	9.38	10.19	9.81	10.61	11.05	15.92	16.73	16.36	17.15	17.59
	6H	10.01	10.71	10.47	11.16	11.62	15.97	16.67	16.44	17.12	17.58
	8H	10.26	10.91	10.73	11.36	11.83	15.99	16.64	16.46	17.09	17.56
	12H	10.53	11.11	11.02	11.59	12.06	16.02	16.60	16.51	17.08	17.56
8H	4H	9.81	10.46	10.28	10.91	11.38	15.87	16.52	16.34	16.97	17.44
	6H	10.68	11.22	11.19	11.71	12.20	15.96	16.50	16.47	17.00	17.48
	8H	11.09	11.57	11.61	12.08	12.58	16.02	16.51	16.55	17.02	17.51
	12H	11.56	11.99	12.08	12.48	13.06	16.12	16.55	16.64	17.04	17.61
12H	4H	9.85	10.43	10.34	10.91	11.38	15.84	16.42	16.33	16.90	17.38
	6H	10.80	11.28	11.32	11.79	12.28	15.94	16.42	16.46	16.94	17.43
	8H	11.31	11.74	11.82	12.23	12.80	16.05	16.47	16.56	16.97	17.54