

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: P1060889

Luminaire Tested: S124RDR-H575D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060889
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-H575D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

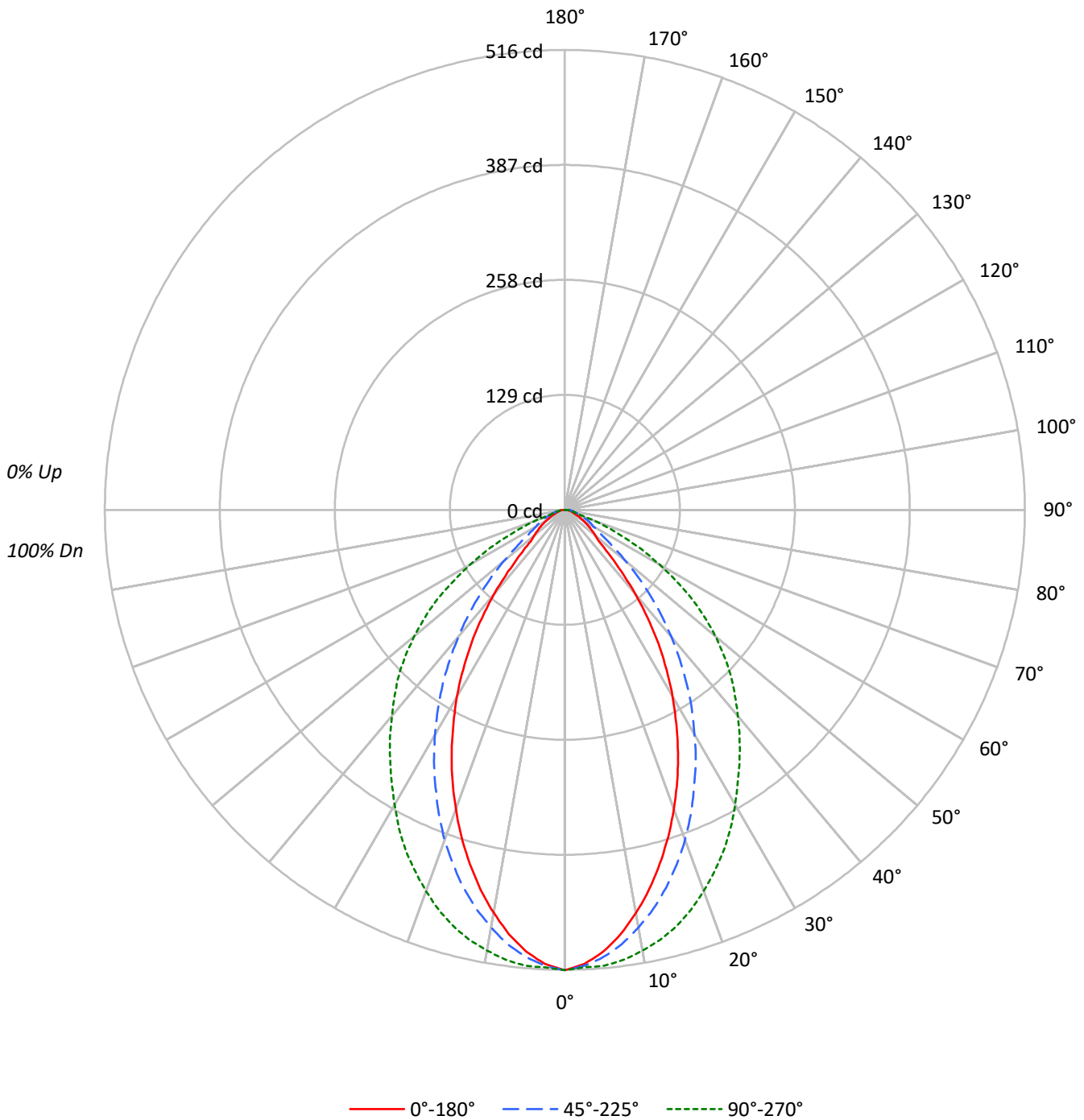
Lumens per Lamp: N/A
Luminaire Lumens: 726.2 lumens
Efficiency: N/A
Efficacy: 41.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	49	45	55	49	45	54	48	45	43				43
9	65	54	46	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°	4448	4448	4448
5°	4300	4351	4436
10°	4016	4160	4389
15°	3667	3913	4311
20°	3275	3612	4172
25°	2853	3259	4008
30°	2404	2894	3796
35°	1921	2507	3592
40°	1382	2083	3390
45°	832	1640	3209
50°	599	1188	2949
55°	503	799	2614
60°	408	634	2105
65°	322	577	1512
70°	282	481	811
75°	263	436	393
80°	263	456	357
85°	385	652	454

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3209 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	6.5
10°-20°	124.2	17.1
20°-30°	161.2	22.2
30°-40°	154.9	21.3
40°-50°	115.0	15.8
50°-60°	70.4	9.7
60°-70°	34.2	4.7
70°-80°	13.0	1.8
80°-90°	5.9	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°	332.8	45.8
0°-40°	487.8	67.2
0°-60°	673.1	92.7
0°-90°	726.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	726.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	516	516	516	516	516	
5°	497	505	503	508	513	46
15°	411	423	439	465	484	115
25°	300	315	343	387	422	137
35°	183	199	238	295	342	113
45°	68	85	135	206	264	57
55°	34	35	53	120	174	30
65°	16	17	28	45	74	16
75°	8	12	13	12	12	8
85°	4	7	7	6	5	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	516.5	516.5	516.5	516.5	516.5
2.5°	509.9	515.8	511.9	513.2	513.8
5°	497.4	504.6	503.3	507.9	513.2
7.5°	480.3	488.9	491.5	500.7	509.2
10°	459.3	469.8	475.7	490.8	502.0
12.5°	436.3	447.5	458.6	479.0	494.1
15°	411.3	423.1	438.9	465.2	483.6
17.5°	385.0	398.2	417.2	448.8	470.5
20°	357.4	371.2	394.2	429.1	455.3
22.5°	329.2	343.6	369.3	408.0	438.9
25°	300.3	315.4	343.0	387.0	421.8
27.5°	270.7	286.5	318.0	364.7	402.8
30°	241.8	256.9	291.1	341.7	381.8
32.5°	212.2	228.0	264.8	318.0	361.4
35°	182.7	199.1	238.5	295.0	341.7
37.5°	152.4	170.2	211.6	272.7	322.0
40°	122.9	140.0	185.3	249.7	301.6
42.5°	94.0	112.4	160.3	226.7	282.5
45°	68.3	85.4	134.7	205.7	263.5
47.5°	51.3	61.8	111.0	185.9	242.5
50°	44.7	46.7	88.7	164.3	220.1
52.5°	38.8	40.1	69.0	140.6	197.8
55°	33.5	34.8	53.2	120.2	174.1
57.5°	28.3	29.6	42.7	100.5	147.2
60°	23.7	25.0	36.8	80.2	122.2
62.5°	19.7	20.4	32.9	61.1	97.9
65°	15.8	17.1	28.3	44.7	74.2
67.5°	13.1	14.5	23.0	30.9	51.9
70°	11.2	14.5	19.1	21.7	32.2
72.5°	9.2	13.1	15.8	15.1	15.1
75°	7.9	12.5	13.1	11.8	11.8
77.5°	6.6	11.2	10.5	9.9	9.2
80°	5.3	9.2	9.2	7.9	7.2
82.5°	4.6	7.2	7.2	7.2	5.9
85°	3.9	6.6	6.6	5.9	4.6
87.5°	2.6	5.3	5.9	5.3	3.3
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	5.01	6.34	5.37	6.66	6.97	14.10	15.43	14.46	15.75	16.06
	3H	6.05	7.24	6.43	7.57	7.93	14.60	15.79	14.98	16.12	16.48
	4H	6.57	7.67	6.97	8.02	8.41	14.61	15.72	15.01	16.07	16.45
	6H	7.02	8.04	7.43	8.41	8.80	14.61	15.63	15.02	16.00	16.39
	8H	7.21	8.17	7.64	8.56	8.97	14.61	15.57	15.04	15.96	16.37
	12H	7.42	8.34	7.85	8.72	9.15	14.61	15.53	15.04	15.91	16.34
4H	2H	6.10	7.21	6.50	7.56	7.94	13.99	15.09	14.39	15.44	15.83
	3H	7.37	8.28	7.78	8.68	9.08	14.56	15.47	14.98	15.87	16.28
	4H	8.08	8.89	8.51	9.31	9.75	14.61	15.42	15.05	15.84	16.28
	6H	8.71	9.41	9.17	9.86	10.32	14.66	15.36	15.13	15.81	16.27
	8H	8.95	9.61	9.42	10.05	10.52	14.68	15.33	15.15	15.78	16.25
	12H	9.23	9.81	9.71	10.29	10.76	14.71	15.29	15.20	15.77	16.25
8H	4H	8.50	9.16	8.97	9.60	10.07	14.56	15.21	15.03	15.66	16.13
	6H	9.38	9.92	9.88	10.41	10.89	14.65	15.19	15.16	15.69	16.17
	8H	9.78	10.27	10.31	10.78	11.27	14.71	15.20	15.24	15.71	16.20
	12H	10.26	10.69	10.77	11.18	11.75	14.81	15.24	15.33	15.73	16.30
12H	4H	8.54	9.12	9.03	9.61	10.08	14.53	15.11	15.02	15.59	16.07
	6H	9.49	9.97	10.01	10.49	10.98	14.63	15.11	15.15	15.63	16.12
	8H	10.01	10.43	10.52	10.93	11.50	14.74	15.16	15.25	15.66	16.23