

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: P1060904

Luminaire Tested: S124RDR-H575D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060904
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D927-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

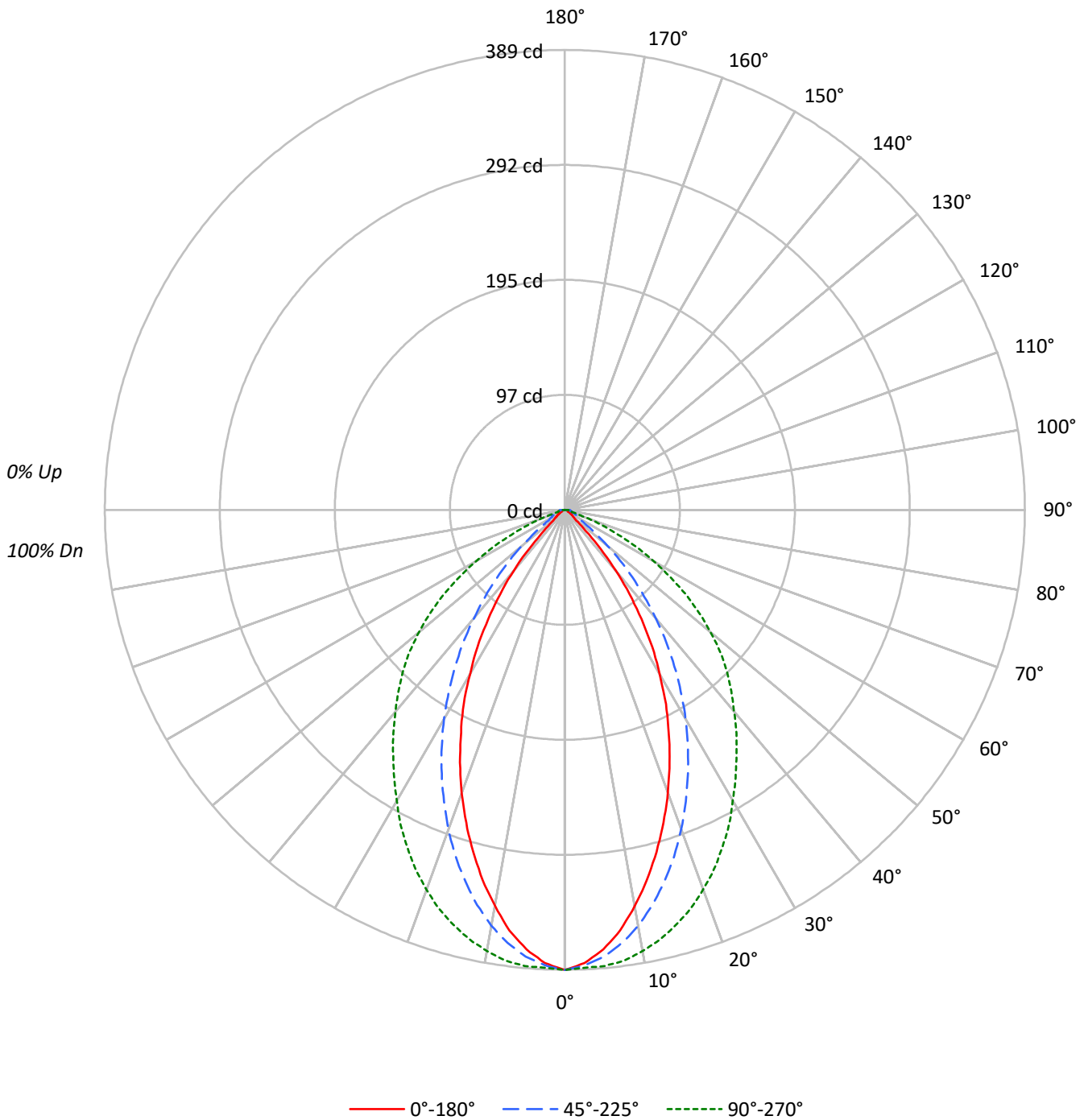
Lumens per Lamp: N/A
Luminaire Lumens: 488.5 lumens
Efficiency: N/A
Efficacy: 28.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3351	3351	3351
5°	3226	3280	3347
10°	2976	3124	3313
15°	2670	2900	3241
20°	2334	2636	3132
25°	1974	2341	2993
30°	1594	2030	2825
35°	1187	1697	2661
40°	753	1344	2503
45°	301	985	2360
50°	131	628	2154
55°	101	326	1881
60°	71	222	1491
65°	53	220	1019
70°	53	194	468
75°	70	206	190
80°	104	228	203
85°	207	405	306

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2360 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	7.3
10°-20°	91.9	18.8
20°-30°	116.1	23.8
30°-40°	106.6	21.8
40°-50°	72.7	14.9
50°-60°	39.4	8.1
60°-70°	16.7	3.4
70°-80°	5.8	1.2
80°-90°	3.7	0.7
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°	243.6	49.9
0°-40°	350.2	71.7
0°-60°	462.3	94.6
0°-90°	488.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	488.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	389	389	389	389	389	
5°	373	379	379	382	387	35
15°	300	309	325	348	364	83
25°	208	221	246	285	315	95
35°	113	128	161	212	253	70
45°	25	40	81	143	194	23
55°	7	7	22	79	125	6
65°	3	3	11	25	50	3
75°	2	6	6	6	6	2
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	389.2	389.2	389.2	389.2	389.2
2.5°	383.6	388.2	385.6	386.7	387.7
5°	373.2	378.9	379.4	382.5	387.2
7.5°	358.8	365.5	369.6	377.4	384.6
10°	340.3	348.5	357.3	369.6	378.9
12.5°	320.7	329.4	342.3	359.8	372.2
15°	299.5	309.3	325.3	348.5	363.5
17.5°	277.4	288.2	307.3	334.6	353.7
20°	254.7	266.5	287.7	318.6	341.8
22.5°	231.5	243.8	267.0	302.1	329.4
25°	207.8	221.2	246.4	284.6	315.0
27.5°	185.1	197.5	225.3	267.0	300.6
30°	160.3	174.3	204.2	249.0	284.1
32.5°	137.6	151.1	182.5	230.4	268.6
35°	112.9	127.9	161.4	211.9	253.1
37.5°	89.7	104.1	140.7	194.4	238.2
40°	67.0	82.0	119.6	176.8	222.7
42.5°	44.9	60.8	99.5	158.8	208.3
45°	24.7	39.7	80.9	143.3	193.8
47.5°	12.9	21.7	63.4	127.9	178.4
50°	9.8	11.9	46.9	110.8	160.8
52.5°	8.2	8.8	32.0	93.8	143.3
55°	6.7	7.2	21.7	78.9	125.3
57.5°	5.2	5.7	15.5	64.4	105.2
60°	4.1	4.6	12.9	49.5	86.6
62.5°	3.1	3.6	12.4	36.6	68.1
65°	2.6	3.1	10.8	24.7	50.0
67.5°	2.1	3.1	9.3	16.0	33.5
70°	2.1	4.1	7.7	10.3	18.6
72.5°	2.1	4.6	6.7	6.7	6.7
75°	2.1	5.7	6.2	5.7	5.7
77.5°	2.1	5.2	5.2	5.2	5.2
80°	2.1	4.6	4.6	4.6	4.1
82.5°	2.1	4.1	4.6	4.6	3.6
85°	2.1	4.1	4.1	4.1	3.1
87.5°	1.5	4.1	4.1	4.1	2.1
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	0.00	0.00	0.00	0.00	0.00	12.64	13.92	13.01	14.23	14.55
	3H	0.00	0.00	0.00	0.00	0.00	13.00	14.13	13.38	14.46	14.82
	4H	0.00	0.00	0.00	0.00	0.00	12.96	14.01	13.37	14.36	14.75
	6H	0.00	0.00	0.00	0.30	0.69	12.94	13.90	13.36	14.27	14.67
	8H	0.00	0.56	0.08	0.95	1.36	12.93	13.84	13.36	14.23	14.64
	12H	0.46	1.33	0.89	1.71	2.14	12.93	13.80	13.36	14.18	14.61
4H	2H	0.00	0.00	0.00	0.00	0.13	12.44	13.49	12.85	13.84	14.23
	3H	0.00	0.62	0.17	1.02	1.43	12.84	13.69	13.25	14.10	14.50
	4H	1.23	1.99	1.66	2.41	2.86	12.82	13.58	13.26	14.00	14.45
	6H	2.48	3.14	2.94	3.59	4.05	12.84	13.50	13.30	13.94	14.41
	8H	3.05	3.67	3.52	4.11	4.59	12.85	13.46	13.32	13.91	14.38
	12H	3.73	4.27	4.22	4.76	5.23	12.88	13.43	13.37	13.91	14.39
8H	4H	2.31	2.92	2.78	3.37	3.84	12.72	13.34	13.19	13.78	14.26
	6H	3.91	4.41	4.41	4.91	5.39	12.77	13.27	13.27	13.77	14.25
	8H	4.74	5.19	5.26	5.71	6.20	12.83	13.28	13.35	13.79	14.29
	12H	5.71	6.11	6.22	6.60	7.17	12.94	13.34	13.46	13.84	14.41
12H	4H	2.49	3.03	2.98	3.52	3.99	12.68	13.23	13.17	13.71	14.18
	6H	4.25	4.70	4.77	5.22	5.71	12.74	13.19	13.26	13.71	14.20
	8H	5.26	5.66	5.78	6.16	6.73	12.84	13.24	13.36	13.74	14.31