

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: P1060681

Luminaire Tested: S124RDR-H1020D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060681
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D935-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

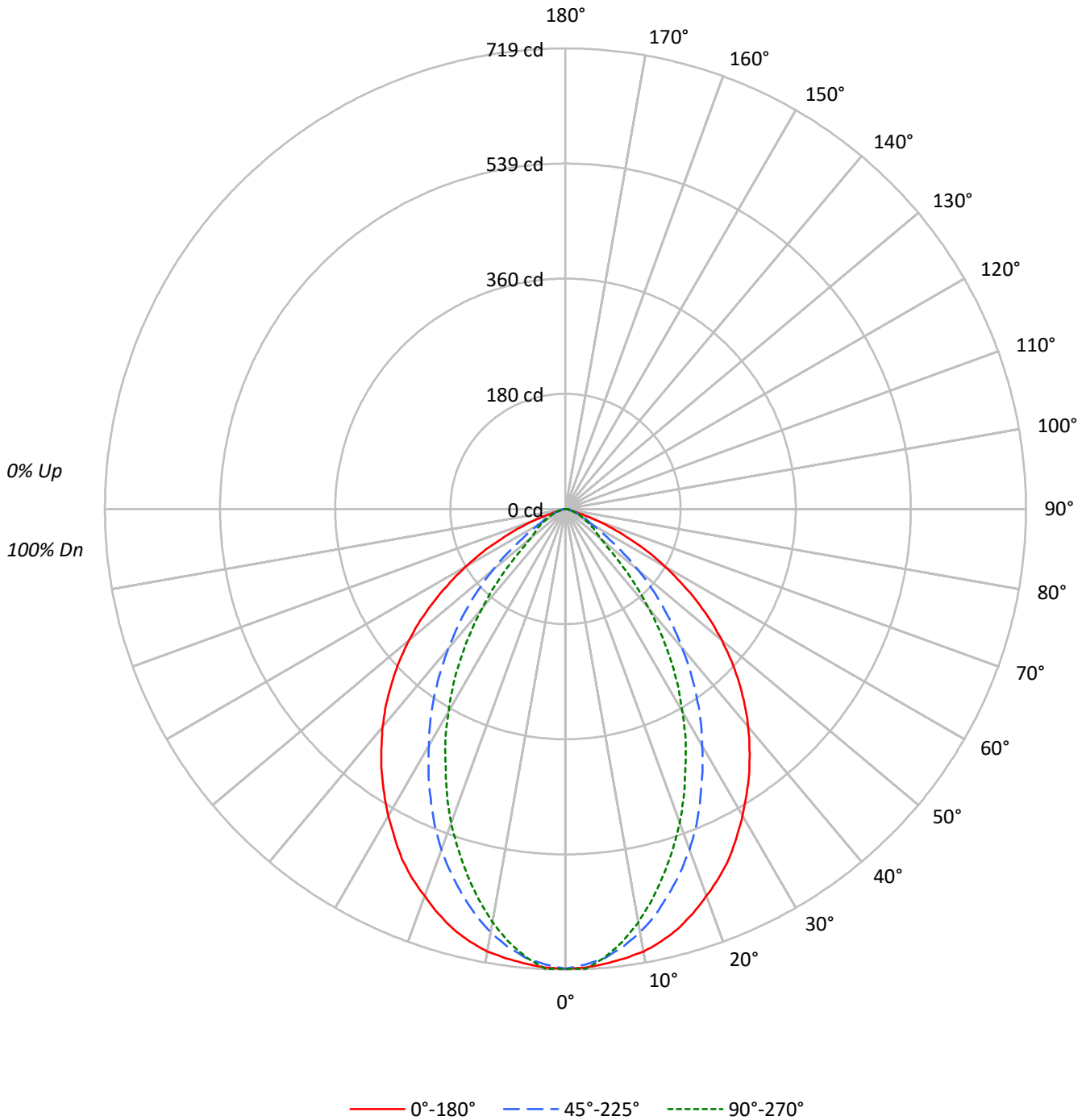
Lumens per Lamp: N/A
Luminaire Lumens: 1058.2 lumens
Efficiency: N/A
Efficacy: 33.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	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	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6180	6180	6180
5°	6161	6082	6073
10°	6135	5869	5728
15°	6047	5551	5272
20°	5891	5188	4780
25°	5734	4735	4207
30°	5499	4242	3628
35°	5260	3751	2997
40°	4989	3194	2273
45°	4665	2610	1527
50°	4265	1977	948
55°	3749	1305	805
60°	3098	801	661
65°	2245	617	536
70°	1221	458	408
75°	269	336	369
80°	198	253	302
85°	198	198	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4665 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	6.3
10°-20°	176.6	16.7
20°-30°	234.0	22.1
30°-40°	232.2	21.9
40°-50°	178.7	16.9
50°-60°	106.5	10.1
60°-70°	48.4	4.6
70°-80°	12.5	1.2
80°-90°	2.8	0.3
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°	477.1	45.1
0°-40°	709.3	67.0
0°-60°	994.5	94.0
0°-90°	1058.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1058.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	713	714	704	704	703	68
15°	678	661	623	602	591	191
25°	604	560	498	457	443	277
35°	500	438	357	302	285	312
45°	383	308	214	150	125	295
55°	250	178	87	55	54	222
65°	110	66	30	26	26	111
75°	8	10	10	11	11	17
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	717.7	717.7	717.7	717.7	717.7
2.5°	716.7	717.7	711.7	716.7	718.7
5°	712.7	713.7	703.6	703.6	702.6
7.5°	707.6	705.6	689.4	683.4	681.3
10°	701.6	694.5	671.2	659.1	655.1
12.5°	691.5	680.3	649.0	631.8	624.7
15°	678.3	661.1	622.7	601.5	591.4
17.5°	662.1	640.9	595.4	568.1	557.0
20°	642.9	614.6	566.1	531.7	521.6
22.5°	624.7	589.4	533.8	494.3	483.2
25°	603.5	560.0	498.4	456.9	442.8
27.5°	578.2	531.7	463.0	420.5	406.4
30°	553.0	501.4	426.6	382.1	364.9
32.5°	526.7	470.1	393.2	342.7	326.5
35°	500.4	437.7	356.8	302.3	285.1
37.5°	472.1	405.4	320.5	263.8	244.6
40°	443.8	374.0	284.1	226.4	202.2
42.5°	414.5	341.7	248.7	188.0	163.8
45°	383.1	308.3	214.3	149.6	125.4
47.5°	351.8	277.0	179.9	112.2	90.0
50°	318.4	243.6	147.6	81.9	70.8
52.5°	285.1	211.3	115.2	63.7	60.7
55°	249.7	177.9	86.9	54.6	53.6
57.5°	213.3	147.6	62.7	47.5	45.5
60°	179.9	119.3	46.5	40.4	38.4
62.5°	145.6	90.0	38.4	33.4	31.3
65°	110.2	65.7	30.3	26.3	26.3
67.5°	79.9	44.5	24.3	21.2	20.2
70°	48.5	27.3	18.2	17.2	16.2
72.5°	24.3	16.2	14.2	13.1	13.1
75°	8.1	10.1	10.1	11.1	11.1
77.5°	6.1	7.1	7.1	8.1	8.1
80°	4.0	5.1	5.1	6.1	6.1
82.5°	3.0	3.0	4.0	4.0	5.1
85°	2.0	2.0	2.0	3.0	3.0
87.5°	1.0	1.0	1.0	2.0	2.0
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	15.45	16.78	15.81	17.09	17.41	6.99	8.33	7.36	8.64	8.96
	3H	15.96	17.14	16.34	17.47	17.83	7.81	8.99	8.19	9.32	9.69
	4H	15.92	17.02	16.33	17.37	17.75	8.09	9.19	8.50	9.54	9.92
	6H	15.86	16.87	16.27	17.24	17.63	8.27	9.27	8.68	9.64	10.04
	8H	15.82	16.77	16.25	17.17	17.57	8.33	9.29	8.76	9.68	10.08
	12H	15.78	16.69	16.21	17.08	17.51	8.38	9.29	8.81	9.67	10.10
4H	2H	15.29	16.39	15.69	16.74	17.12	7.44	8.53	7.84	8.88	9.27
	3H	15.84	16.74	16.26	17.14	17.54	8.40	9.29	8.81	9.70	10.10
	4H	15.81	16.61	16.25	17.03	17.47	8.76	9.56	9.20	9.98	10.42
	6H	15.76	16.45	16.22	16.89	17.36	9.02	9.70	9.48	10.15	10.61
	8H	15.71	16.35	16.18	16.80	17.27	9.11	9.75	9.58	10.19	10.66
	12H	15.67	16.24	16.16	16.72	17.20	9.18	9.74	9.67	10.23	10.70
8H	4H	15.70	16.34	16.17	16.79	17.26	8.85	9.49	9.32	9.94	10.41
	6H	15.64	16.16	16.14	16.66	17.14	9.17	9.69	9.67	10.18	10.67
	8H	15.59	16.06	16.12	16.58	17.07	9.30	9.77	9.82	10.28	10.77
	12H	15.56	15.98	16.08	16.47	17.04	9.43	9.84	9.95	10.34	10.91
12H	4H	15.66	16.22	16.15	16.71	17.18	8.83	9.39	9.31	9.87	10.35
	6H	15.59	16.05	16.11	16.57	17.06	9.15	9.61	9.67	10.13	10.62
	8H	15.56	15.97	16.07	16.47	17.04	9.32	9.73	9.83	10.22	10.80