

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: P1060665

Luminaire Tested: S124RDR-H1020D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060665
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-H1020D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

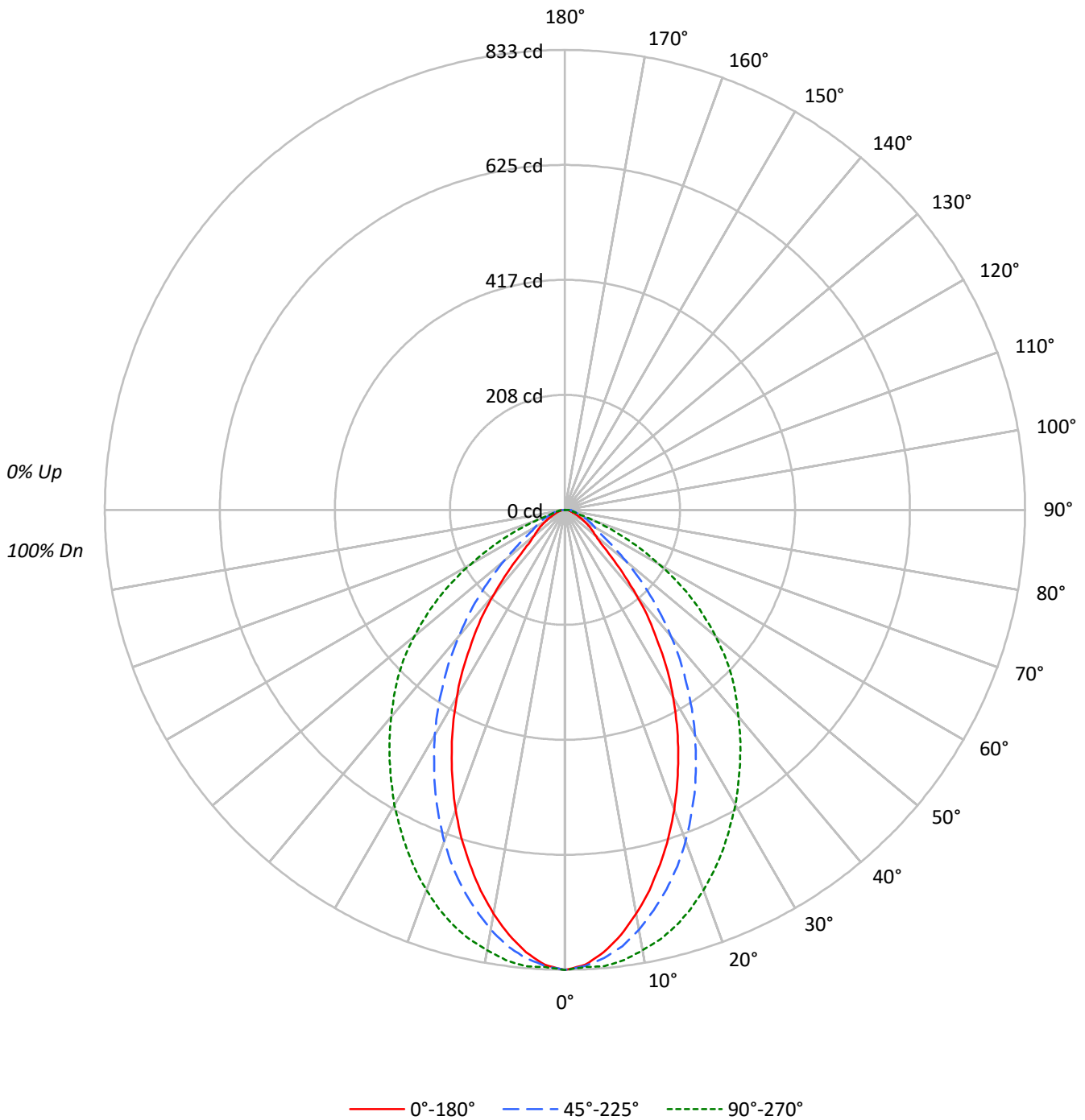
Lumens per Lamp: N/A
Luminaire Lumens: 1179.4 lumens
Efficiency: N/A
Efficacy: 37.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	7176	7176	7176
5°	6954	7042	7171
10°	6497	6749	7083
15°	5927	6342	6947
20°	5298	5853	6715
25°	4609	5290	6440
30°	3889	4684	6138
35°	3093	4032	5814
40°	2250	3360	5495
45°	1360	2654	5205
50°	973	1921	4765
55°	824	1300	4208
60°	673	1059	3400
65°	532	950	2447
70°	446	798	1289
75°	403	742	652
80°	417	739	645
85°	553	1107	731

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5205 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.7	6.5
10°-20°	201.0	17.0
20°-30°	260.7	22.1
30°-40°	251.0	21.3
40°-50°	186.7	15.8
50°-60°	114.8	9.7
60°-70°	56.4	4.8
70°-80°	22.0	1.9
80°-90°	10.0	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°	538.5	45.7
0°-40°	789.5	66.9
0°-60°	1091.0	92.5
0°-90°	1179.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1179.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	804	817	815	822	830	75
15°	665	686	711	754	779	186
25°	485	511	557	627	678	222
35°	294	322	384	480	553	184
45°	112	139	218	336	427	93
55°	55	57	87	197	280	49
65°	26	28	47	74	120	27
75°	12	21	22	20	20	13
85°	6	10	11	11	7	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	833.3	833.3	833.3	833.3	833.3
2.5°	825.0	834.3	826.8	827.8	828.7
5°	804.5	816.6	814.7	822.2	829.6
7.5°	776.5	790.5	797.0	811.9	822.2
10°	743.0	758.9	771.9	796.1	810.1
12.5°	705.8	724.4	743.0	775.6	797.0
15°	664.8	686.2	711.4	754.2	779.3
17.5°	622.9	644.3	676.9	726.3	757.9
20°	578.2	601.5	638.7	693.7	732.8
22.5°	531.7	556.8	597.8	660.2	706.7
25°	485.1	511.2	556.8	626.6	677.8
27.5°	438.6	463.7	513.0	591.3	647.1
30°	391.1	417.1	471.1	553.1	617.3
32.5°	345.4	369.6	427.4	516.8	584.7
35°	294.2	322.2	383.6	479.5	553.1
37.5°	250.5	275.6	341.7	442.3	521.4
40°	200.2	228.1	298.9	406.0	488.8
42.5°	153.6	181.6	257.9	369.6	458.1
45°	111.7	138.7	217.9	336.1	427.4
47.5°	84.7	100.6	178.8	303.5	392.9
50°	72.6	77.3	143.4	268.2	355.7
52.5°	64.2	66.1	111.7	232.8	318.4
55°	54.9	56.8	86.6	197.4	280.3
57.5°	46.6	47.5	69.8	163.9	239.3
60°	39.1	40.0	61.5	131.3	197.4
62.5°	32.6	33.5	54.9	101.5	157.4
65°	26.1	27.9	46.6	74.5	120.1
67.5°	21.4	25.1	39.1	52.1	83.8
70°	17.7	24.2	31.7	36.3	51.2
72.5°	14.9	22.3	27.0	26.1	25.1
75°	12.1	21.4	22.3	20.5	19.6
77.5°	10.2	18.6	18.6	16.8	15.8
80°	8.4	14.9	14.9	14.9	13.0
82.5°	7.4	12.1	13.0	13.0	10.2
85°	5.6	10.2	11.2	11.2	7.4
87.5°	3.7	9.3	10.2	9.3	5.6
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	6.63	7.98	7.00	8.29	8.60	15.80	17.14	16.17	17.46	17.77
	3H	7.74	8.93	8.12	9.26	9.63	16.31	17.50	16.69	17.83	18.19
	4H	8.26	9.37	8.66	9.72	10.10	16.33	17.44	16.73	17.79	18.17
	6H	8.69	9.71	9.11	10.08	10.48	16.34	17.36	16.75	17.73	18.12
	8H	8.88	9.85	9.31	10.24	10.64	16.34	17.31	16.77	17.70	18.10
	12H	9.06	9.99	9.49	10.37	10.80	16.34	17.27	16.78	17.65	18.08
4H	2H	7.78	8.89	8.18	9.24	9.62	15.69	16.80	16.10	17.15	17.54
	3H	9.12	10.03	9.53	10.43	10.83	16.28	17.19	16.69	17.59	18.00
	4H	9.85	10.66	10.29	11.08	11.53	16.34	17.15	16.78	17.57	18.02
	6H	10.46	11.16	10.92	11.61	12.07	16.42	17.12	16.88	17.56	18.03
	8H	10.70	11.36	11.17	11.80	12.27	16.45	17.10	16.91	17.55	18.02
	12H	10.94	11.52	11.42	12.00	12.47	16.49	17.07	16.97	17.55	18.02
8H	4H	10.32	10.97	10.79	11.42	11.89	16.30	16.95	16.77	17.40	17.87
	6H	11.17	11.70	11.67	12.20	12.68	16.43	16.96	16.93	17.46	17.94
	8H	11.57	12.06	12.09	12.57	13.06	16.51	16.99	17.03	17.51	18.00
	12H	11.99	12.42	12.51	12.92	13.49	16.63	17.06	17.14	17.55	18.12
12H	4H	10.37	10.95	10.86	11.44	11.91	16.27	16.85	16.76	17.33	17.81
	6H	11.30	11.78	11.82	12.30	12.79	16.41	16.89	16.93	17.41	17.90
	8H	11.82	12.25	12.33	12.74	13.31	16.54	16.97	17.05	17.46	18.03