

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: P1060668

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060668
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D927-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

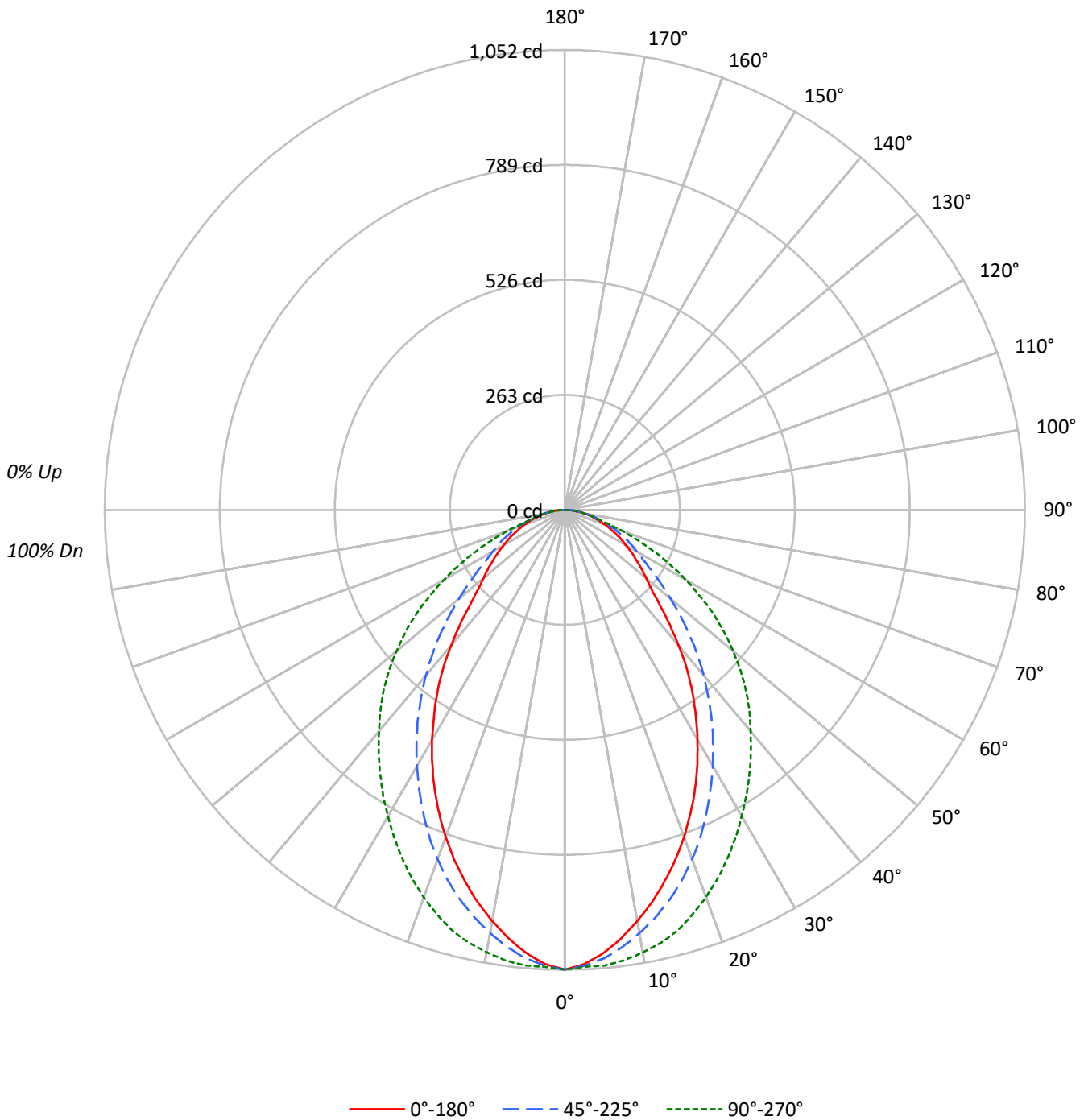
Lumens per Lamp: N/A
Luminaire Lumens: 1929.9 lumens
Efficiency: N/A
Efficacy: 61.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9056	9056	9056
5°	8794	8898	9043
10°	8350	8594	8984
15°	7850	8231	8878
20°	7301	7796	8640
25°	6695	7278	8357
30°	6034	6728	8042
35°	5342	6154	7739
40°	4540	5555	7428
45°	3718	4908	7141
50°	3254	4215	6721
55°	2991	3633	6218
60°	2773	3271	5482
65°	2598	3073	4589
70°	2437	2812	3444
75°	2292	2572	2509
80°	2122	2356	2122
85°	1927	2302	1838

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7141 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.2	5.0
10°-20°	261.5	13.6
20°-30°	357.5	18.5
30°-40°	375.7	19.5
40°-50°	326.0	16.9
50°-60°	245.9	12.7
60°-70°	159.4	8.3
70°-80°	81.8	4.2
80°-90°	24.8	1.3
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°	716.2	37.1
0°-40°	1091.9	56.6
0°-60°	1663.8	86.2
0°-90°	1929.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1929.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1052	1052	1052	1052	1052	
5°	1017	1031	1029	1038	1046	95
15°	880	902	923	965	996	247
25°	705	730	766	825	880	323
35°	508	536	585	664	736	316
45°	305	334	403	504	586	240
55°	199	205	242	343	414	179
65°	128	130	151	182	225	127
75°	69	77	77	78	75	73
85°	20	24	23	22	19	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1051.7	1051.7	1051.7	1051.7	1051.7
2.5°	1039.6	1052.7	1043.4	1045.2	1046.2
5°	1017.3	1031.3	1029.4	1037.8	1046.2
7.5°	988.4	1005.2	1008.9	1025.7	1039.6
10°	954.9	973.6	982.9	1009.9	1027.5
12.5°	919.6	938.2	954.9	989.4	1014.5
15°	880.5	901.9	923.3	965.2	995.9
17.5°	839.5	861.9	888.9	934.5	970.8
20°	796.7	819.1	850.7	900.0	942.8
22.5°	751.1	776.2	809.7	862.8	913.1
25°	704.6	729.7	766.0	824.6	879.6
27.5°	656.2	682.2	721.3	786.5	845.1
30°	606.8	634.8	676.6	745.5	808.8
32.5°	556.6	586.4	631.0	704.6	773.4
35°	508.2	536.1	585.4	663.6	736.2
37.5°	457.9	485.8	538.9	623.6	699.0
40°	403.9	434.7	494.2	581.7	660.8
42.5°	353.7	384.4	448.6	541.7	624.5
45°	305.3	334.1	403.0	503.5	586.4
47.5°	268.1	288.5	357.4	466.3	545.4
50°	242.9	252.2	314.6	425.3	501.7
52.5°	220.6	228.0	275.5	384.4	458.9
55°	199.2	204.8	242.0	343.4	414.2
57.5°	180.6	183.4	212.2	302.5	365.8
60°	161.0	164.7	189.9	260.6	318.3
62.5°	145.2	147.1	170.3	220.6	270.8
65°	127.5	130.3	150.8	182.4	225.2
67.5°	111.7	116.3	130.3	148.9	177.8
70°	96.8	103.3	111.7	121.0	136.8
72.5°	82.8	90.3	94.9	98.7	95.9
75°	68.9	77.3	77.3	78.2	75.4
77.5°	55.8	63.3	62.4	61.4	57.7
80°	42.8	49.3	47.5	46.5	42.8
82.5°	31.6	36.3	34.4	33.5	28.9
85°	19.5	24.2	23.3	22.3	18.6
87.5°	9.3	14.0	13.0	12.1	8.4
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	14.16	15.65	14.53	15.96	16.27	17.90	19.38	18.26	19.70	20.01
	3H	15.83	17.16	16.20	17.49	17.85	19.02	20.36	19.40	20.68	21.05
	4H	16.49	17.74	16.89	18.09	18.47	19.32	20.57	19.72	20.92	21.30
	6H	17.00	18.15	17.41	18.52	18.91	19.52	20.67	19.93	21.04	21.43
	8H	17.18	18.27	17.60	18.66	19.06	19.57	20.67	20.00	21.06	21.46
	12H	17.29	18.34	17.73	18.73	19.16	19.61	20.66	20.04	21.04	21.47
4H	2H	14.95	16.20	15.35	16.55	16.93	18.06	19.31	18.46	19.66	20.04
	3H	16.82	17.86	17.23	18.26	18.66	19.39	20.43	19.80	20.83	21.23
	4H	17.63	18.56	18.06	18.98	19.42	19.81	20.74	20.24	21.16	21.60
	6H	18.27	19.08	18.73	19.52	19.98	20.13	20.94	20.59	21.38	21.84
	8H	18.49	19.25	18.96	19.69	20.16	20.23	20.98	20.69	21.43	21.89
	12H	18.66	19.33	19.14	19.81	20.28	20.30	20.97	20.78	21.45	21.92
8H	4H	17.98	18.73	18.44	19.18	19.65	19.94	20.70	20.41	21.14	21.61
	6H	18.76	19.39	19.26	19.88	20.36	20.36	20.99	20.86	21.48	21.96
	8H	19.08	19.64	19.60	20.15	20.64	20.52	21.08	21.03	21.59	22.08
	12H	19.35	19.84	19.86	20.33	20.90	20.66	21.15	21.17	21.65	22.21
12H	4H	18.01	18.68	18.49	19.16	19.63	19.95	20.62	20.43	21.10	21.57
	6H	18.83	19.39	19.34	19.90	20.39	20.38	20.95	20.90	21.46	21.94
	8H	19.21	19.71	19.72	20.20	20.77	20.59	21.09	21.10	21.58	22.15