

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: P1060721

Luminaire Tested: S124RDR-H1195D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060721
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

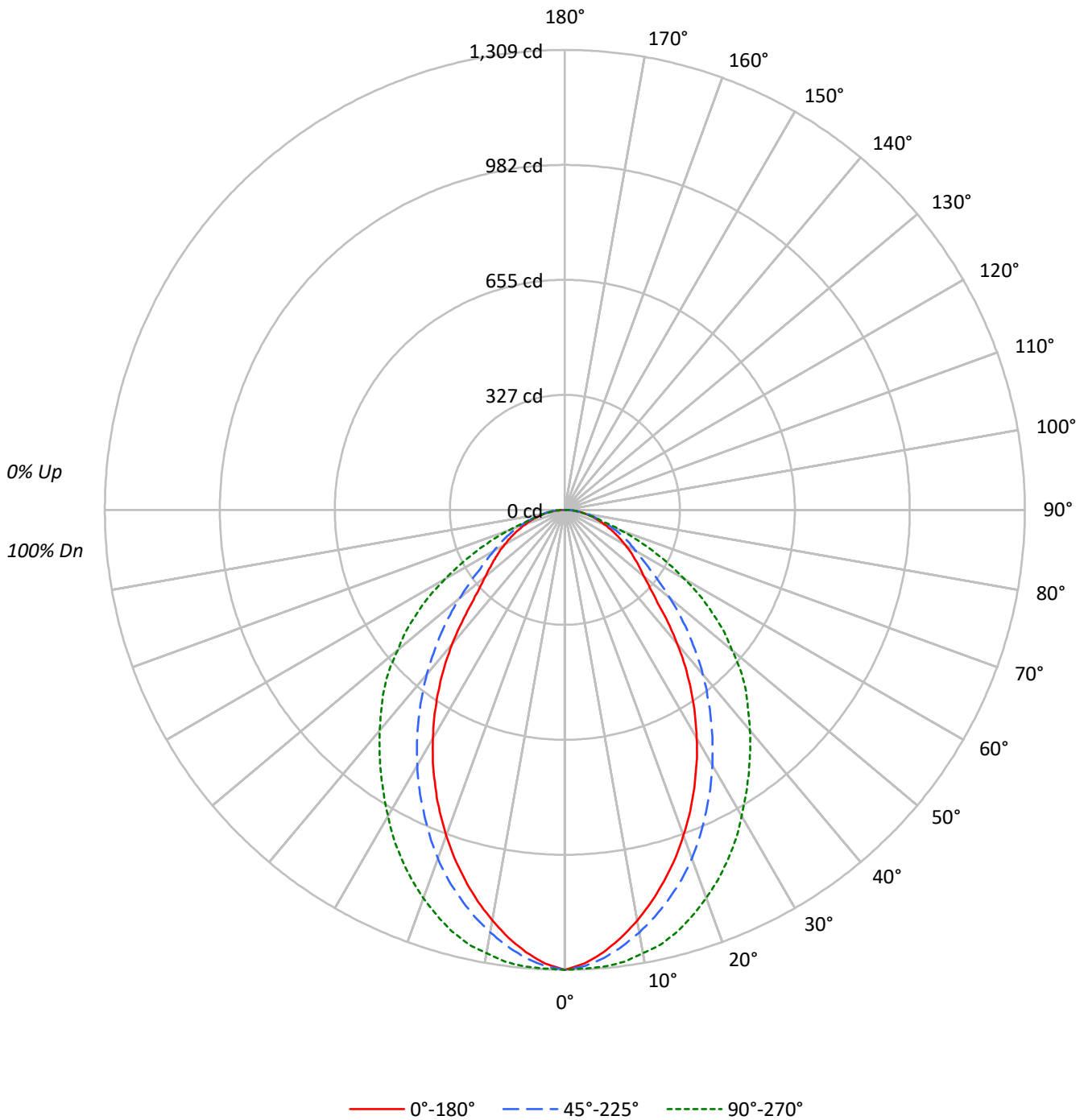
Lumens per Lamp: N/A
Luminaire Lumens: 2383.5 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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										
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	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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	65	65	65	65														
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50	50	50	50	50	50	50														
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41	41	41	41	41	41	41														
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34	34	34	34	34	34	34														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31	31	31	31	31	31	31														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11274	11274	11274
5°	10925	11068	11281
10°	10380	10680	11208
15°	9739	10216	11072
20°	9042	9683	10778
25°	8279	9023	10432
30°	7464	8351	10002
35°	6579	7617	9593
40°	5600	6865	9210
45°	4546	6067	8874
50°	3935	5221	8310
55°	3647	4430	7706
60°	3403	3994	6760
65°	3187	3747	5620
70°	2971	3454	4250
75°	2831	3197	3058
80°	2653	2926	2584
85°	2440	2707	2035

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8874 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.9	5.1
10°-20°	324.9	13.6
20°-30°	443.6	18.6
30°-40°	464.8	19.5
40°-50°	402.3	16.9
50°-60°	302.3	12.7
60°-70°	194.9	8.2
70°-80°	100.0	4.2
80°-90°	29.8	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°	889.4	37.3
0°-40°	1354.2	56.8
0°-60°	2058.8	86.4
0°-90°	2383.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2383.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1309	1309	1309	1309	1309	
5°	1264	1283	1280	1290	1305	118
15°	1092	1120	1146	1198	1242	306
25°	871	904	950	1024	1098	400
35°	626	662	725	821	913	390
45°	373	412	498	620	729	294
55°	243	251	295	421	513	218
65°	156	159	184	222	276	155
75°	85	95	96	95	92	90
85°	25	29	27	26	21	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1309.2	1309.2	1309.2	1309.2	1309.2
2.5°	1292.7	1309.2	1299.6	1302.4	1306.5
5°	1263.9	1283.1	1280.4	1290.0	1305.1
7.5°	1228.2	1248.8	1252.9	1274.9	1296.9
10°	1187.1	1210.4	1221.4	1254.3	1281.8
12.5°	1141.8	1166.5	1185.7	1226.9	1266.7
15°	1092.4	1119.8	1145.9	1198.1	1242.0
17.5°	1041.6	1069.1	1103.4	1161.0	1210.4
20°	986.7	1016.9	1056.7	1117.1	1176.1
22.5°	930.4	962.0	1004.6	1070.4	1139.0
25°	871.4	904.4	949.7	1023.8	1097.9
27.5°	812.4	845.4	896.1	974.4	1055.3
30°	750.7	785.0	839.9	925.0	1005.9
32.5°	688.9	726.0	782.2	872.8	959.3
35°	625.8	661.5	724.6	820.7	912.6
37.5°	562.7	599.7	667.0	769.9	865.9
40°	498.2	536.6	610.7	719.1	819.3
42.5°	433.7	474.8	553.1	667.0	772.6
45°	373.3	411.7	498.2	620.3	728.7
47.5°	328.0	354.1	443.3	575.0	679.3
50°	293.7	307.4	389.7	525.6	620.3
52.5°	267.6	277.2	340.3	472.1	572.3
55°	242.9	251.1	295.1	421.3	513.3
57.5°	220.9	225.1	260.7	371.9	457.0
60°	197.6	201.7	231.9	318.4	392.5
62.5°	177.0	179.8	208.6	267.6	333.5
65°	156.4	159.2	183.9	222.3	275.8
67.5°	137.2	141.4	160.6	181.1	219.6
70°	118.0	126.3	137.2	146.8	168.8
72.5°	101.6	109.8	115.3	118.0	119.4
75°	85.1	94.7	96.1	94.7	91.9
77.5°	68.6	76.9	76.9	74.1	71.4
80°	53.5	60.4	59.0	56.3	52.1
82.5°	39.8	43.9	42.5	39.8	35.7
85°	24.7	28.8	27.4	26.1	20.6
87.5°	12.4	16.5	15.1	13.7	8.2
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	14.85	16.33	15.21	16.65	16.96	18.62	20.11	18.99	20.42	20.73
	3H	16.50	17.83	16.88	18.16	18.52	19.74	21.07	20.11	21.39	21.76
	4H	17.18	18.42	17.58	18.77	19.15	20.03	21.27	20.43	21.62	22.00
	6H	17.69	18.84	18.10	19.20	19.60	20.22	21.37	20.64	21.74	22.13
	8H	17.87	18.96	18.30	19.35	19.75	20.28	21.37	20.70	21.76	22.16
	12H	17.99	19.04	18.43	19.42	19.85	20.30	21.35	20.73	21.73	22.16
4H	2H	15.63	16.88	16.03	17.23	17.61	18.78	20.03	19.18	20.38	20.75
	3H	17.49	18.53	17.90	18.93	19.33	20.09	21.13	20.50	21.53	21.93
	4H	18.30	19.23	18.74	19.65	20.09	20.50	21.43	20.93	21.85	22.29
	6H	18.95	19.76	19.41	20.20	20.66	20.82	21.62	21.27	22.07	22.53
	8H	19.18	19.93	19.64	20.38	20.85	20.91	21.66	21.37	22.11	22.58
	12H	19.35	20.02	19.83	20.50	20.97	20.97	21.64	21.45	22.12	22.59
8H	4H	18.65	19.41	19.12	19.85	20.32	20.63	21.39	21.10	21.83	22.30
	6H	19.45	20.07	19.94	20.56	21.04	21.05	21.67	21.54	22.16	22.64
	8H	19.77	20.33	20.28	20.84	21.32	21.20	21.76	21.71	22.27	22.76
	12H	20.03	20.52	20.54	21.02	21.58	21.32	21.82	21.83	22.31	22.87
12H	4H	18.68	19.35	19.16	19.83	20.31	20.64	21.31	21.12	21.79	22.26
	6H	19.51	20.07	20.02	20.58	21.07	21.07	21.63	21.58	22.14	22.63
	8H	19.89	20.39	20.40	20.88	21.45	21.27	21.76	21.78	22.26	22.82