

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: P1060730

Luminaire Tested: S124RDR-H1195D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060730
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-H1195D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

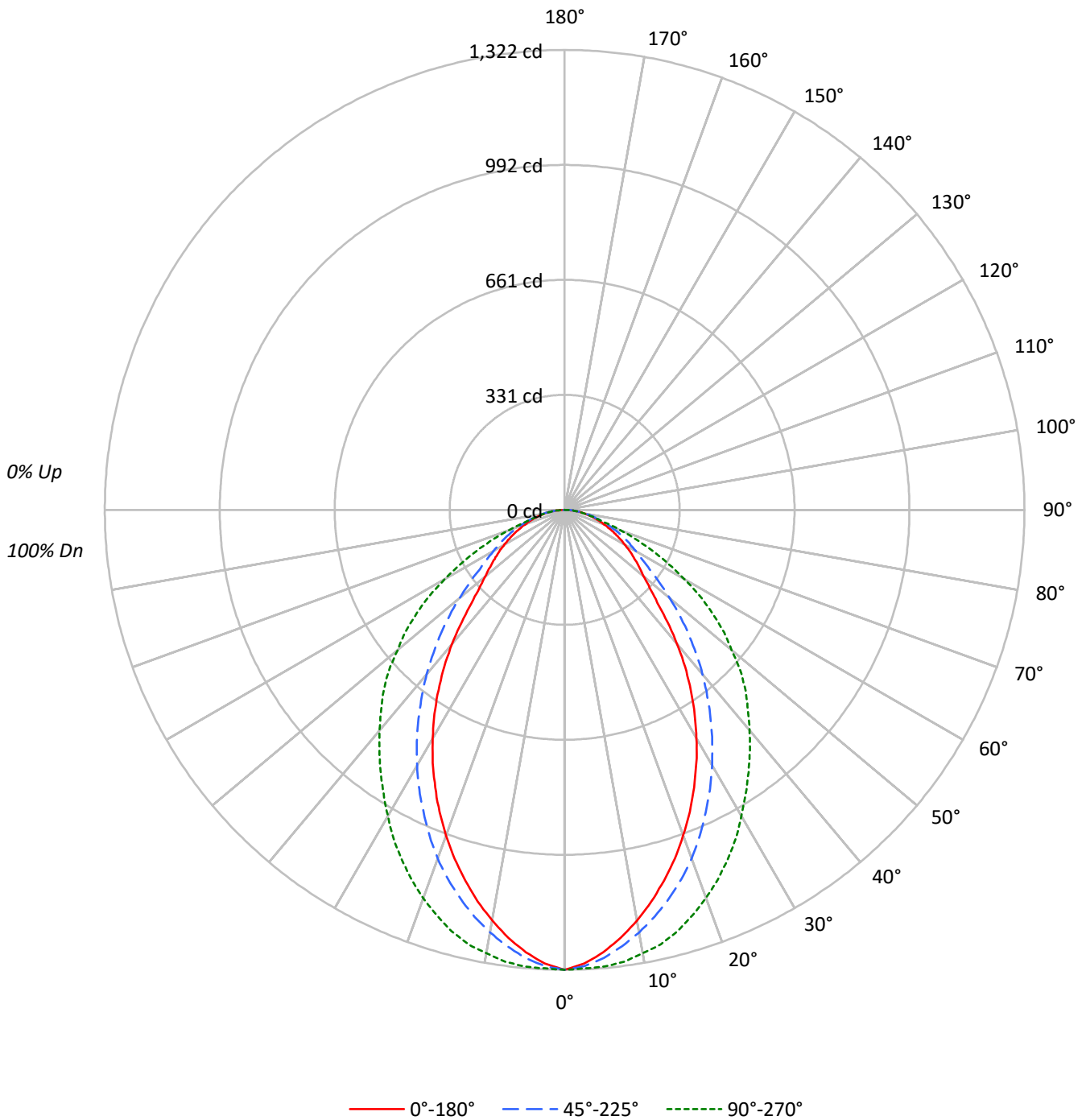
Lumens per Lamp: N/A
Luminaire Lumens: 2407.0 lumens
Efficiency: N/A
Efficacy: 65.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11385	11385	11385
5°	11033	11177	11393
10°	10482	10785	11318
15°	9835	10316	11181
20°	9131	9779	10884
25°	8361	9112	10534
30°	7538	8434	10101
35°	6644	7692	9688
40°	5655	6932	9301
45°	4591	6127	8962
50°	3973	5273	8392
55°	3683	4474	7781
60°	3438	4033	6827
65°	3219	3784	5677
70°	3001	3490	4293
75°	2858	3227	3091
80°	2678	2956	2613
85°	2460	2737	2055

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8962 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.1	5.1
10°-20°	328.1	13.6
20°-30°	448.0	18.6
30°-40°	469.4	19.5
40°-50°	406.3	16.9
50°-60°	305.3	12.7
60°-70°	196.8	8.2
70°-80°	100.9	4.2
80°-90°	30.1	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°	898.2	37.3
0°-40°	1367.6	56.8
0°-60°	2079.1	86.4
0°-90°	2407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2407.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1322	1322	1322	1322	1322	
5°	1276	1296	1293	1303	1318	119
15°	1103	1131	1157	1210	1254	309
25°	880	913	959	1034	1109	404
35°	632	668	732	829	922	394
45°	377	416	503	626	736	297
55°	245	254	298	426	518	220
65°	158	161	186	224	279	157
75°	86	96	97	96	93	91
85°	25	29	28	26	21	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1322.1	1322.1	1322.1	1322.1	1322.1
2.5°	1305.5	1322.1	1312.4	1315.2	1319.4
5°	1276.4	1295.8	1293.0	1302.7	1318.0
7.5°	1240.4	1261.2	1265.3	1287.5	1309.7
10°	1198.8	1222.3	1233.4	1266.7	1294.4
12.5°	1153.1	1178.0	1197.4	1239.0	1279.2
15°	1103.2	1130.9	1157.2	1209.9	1254.2
17.5°	1051.9	1079.6	1114.2	1172.5	1222.3
20°	996.4	1026.9	1067.1	1128.1	1187.7
22.5°	939.6	971.5	1014.5	1081.0	1150.3
25°	880.0	913.3	959.0	1033.9	1108.7
27.5°	820.4	853.7	905.0	984.0	1065.7
30°	758.1	792.7	848.2	934.1	1015.9
32.5°	695.7	733.1	790.0	881.4	968.7
35°	632.0	668.0	731.7	828.8	921.6
37.5°	568.2	605.6	673.5	777.5	874.5
40°	503.1	541.9	616.7	726.2	827.4
42.5°	437.9	479.5	558.5	673.5	780.3
45°	377.0	415.8	503.1	626.4	735.9
47.5°	331.2	357.6	447.6	580.7	686.0
50°	296.6	310.4	393.6	530.8	626.4
52.5°	270.2	279.9	343.7	476.7	577.9
55°	245.3	253.6	298.0	425.5	518.3
57.5°	223.1	227.3	263.3	375.6	461.5
60°	199.6	203.7	234.2	321.5	396.4
62.5°	178.8	181.6	210.7	270.2	336.8
65°	158.0	160.8	185.7	224.5	278.6
67.5°	138.6	142.7	162.1	182.9	221.7
70°	119.2	127.5	138.6	148.3	170.5
72.5°	102.6	110.9	116.4	119.2	120.6
75°	85.9	95.6	97.0	95.6	92.9
77.5°	69.3	77.6	77.6	74.8	72.1
80°	54.0	61.0	59.6	56.8	52.7
82.5°	40.2	44.3	43.0	40.2	36.0
85°	24.9	29.1	27.7	26.3	20.8
87.5°	12.5	16.6	15.2	13.9	8.3
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	14.88	16.37	15.25	16.68	16.99	18.66	20.14	19.02	20.45	20.77
	3H	16.54	17.87	16.92	18.20	18.56	19.77	21.10	20.15	21.43	21.79
	4H	17.21	18.45	17.61	18.80	19.18	20.06	21.31	20.46	21.66	22.03
	6H	17.72	18.87	18.13	19.24	19.63	20.26	21.41	20.67	21.78	22.17
	8H	17.90	19.00	18.33	19.39	19.79	20.31	21.41	20.74	21.80	22.20
	12H	18.03	19.07	18.46	19.46	19.89	20.34	21.39	20.77	21.77	22.20
4H	2H	15.67	16.91	16.07	17.26	17.64	18.82	20.06	19.22	20.41	20.79
	3H	17.53	18.56	17.94	18.96	19.36	20.13	21.16	20.54	21.56	21.96
	4H	18.34	19.27	18.77	19.68	20.12	20.54	21.46	20.97	21.88	22.32
	6H	18.98	19.79	19.44	20.23	20.69	20.85	21.66	21.31	22.10	22.56
	8H	19.21	19.97	19.68	20.41	20.88	20.94	21.70	21.41	22.14	22.61
	12H	19.38	20.05	19.86	20.53	21.01	21.01	21.68	21.49	22.16	22.63
8H	4H	18.68	19.44	19.15	19.88	20.35	20.67	21.42	21.13	21.87	22.34
	6H	19.48	20.10	19.98	20.59	21.07	21.08	21.70	21.58	22.20	22.67
	8H	19.80	20.36	20.31	20.87	21.36	21.23	21.79	21.75	22.30	22.79
	12H	20.06	20.56	20.57	21.05	21.62	21.35	21.85	21.87	22.34	22.91
12H	4H	18.71	19.39	19.20	19.87	20.34	20.67	21.35	21.16	21.83	22.30
	6H	19.54	20.10	20.06	20.61	21.10	21.10	21.66	21.62	22.17	22.66
	8H	19.93	20.42	20.44	20.91	21.48	21.30	21.80	21.81	22.29	22.86