

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: P1060758

Luminaire Tested: S124RDR-H1195D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060758
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-H1195D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

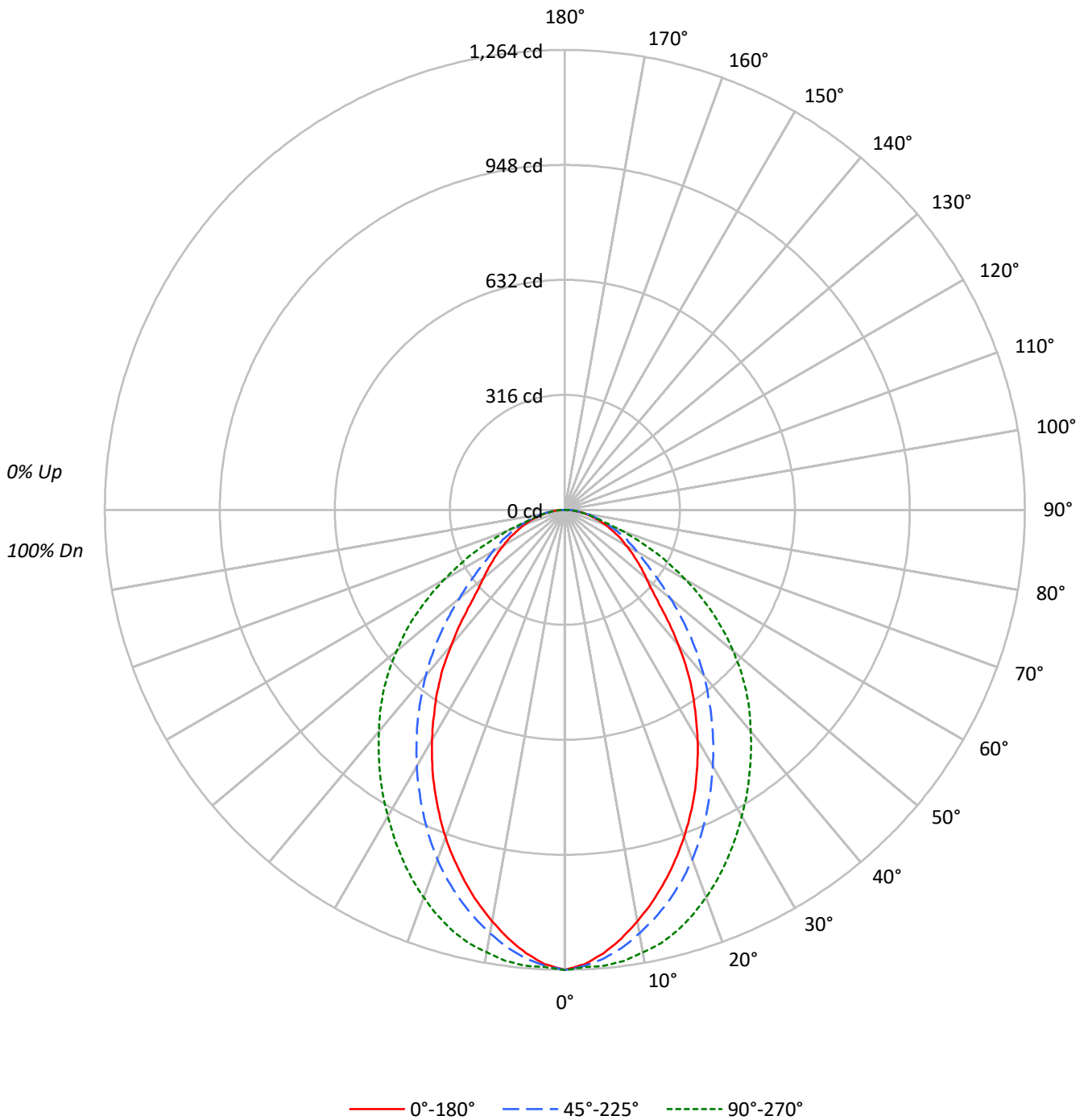
Lumens per Lamp: N/A
Luminaire Lumens: 2320.3 lumens
Efficiency: N/A
Efficacy: 63.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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°	10889	10889	10889
5°	10573	10698	10872
10°	10039	10333	10802
15°	9437	9896	10674
20°	8778	9373	10388
25°	8049	8750	10048
30°	7255	8089	9669
35°	6423	7400	9304
40°	5459	6679	8931
45°	4469	5900	8585
50°	3913	5067	8079
55°	3596	4367	7476
60°	3334	3932	6591
65°	3124	3694	5518
70°	2931	3381	4142
75°	2755	3091	3014
80°	2554	2832	2554
85°	2322	2766	2213

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8585 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.9	5.0
10°-20°	314.4	13.6
20°-30°	429.8	18.5
30°-40°	451.7	19.5
40°-50°	392.0	16.9
50°-60°	295.7	12.7
60°-70°	191.7	8.3
70°-80°	98.4	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°	861.1	37.1
0°-40°	1312.8	56.6
0°-60°	2000.4	86.2
0°-90°	2320.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2320.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1264	1264	1264	1264	1264	
5°	1223	1240	1238	1248	1258	114
15°	1059	1084	1110	1160	1197	297
25°	847	877	921	991	1058	388
35°	611	644	704	798	885	380
45°	367	402	484	605	705	289
55°	240	246	291	413	498	216
65°	153	157	181	219	271	153
75°	83	93	93	94	91	88
85°	24	29	28	27	22	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1264.5	1264.5	1264.5	1264.5	1264.5
2.5°	1249.9	1265.6	1254.4	1256.6	1257.8
5°	1223.1	1239.9	1237.6	1247.7	1257.8
7.5°	1188.4	1208.5	1213.0	1233.1	1249.9
10°	1148.1	1170.5	1181.7	1214.1	1235.4
12.5°	1105.6	1128.0	1148.1	1189.5	1219.7
15°	1058.6	1084.3	1110.1	1160.4	1197.3
17.5°	1009.3	1036.2	1068.7	1123.5	1167.1
20°	957.9	984.7	1022.8	1082.1	1133.6
22.5°	903.0	933.3	973.5	1037.3	1097.7
25°	847.1	877.3	920.9	991.4	1057.5
27.5°	788.9	820.2	867.2	945.6	1016.1
30°	729.6	763.2	813.5	896.3	972.4
32.5°	669.2	705.0	758.7	847.1	929.9
35°	611.0	644.5	703.9	797.9	885.1
37.5°	550.6	584.1	647.9	749.7	840.4
40°	485.6	522.6	594.2	699.4	794.5
42.5°	425.2	462.1	539.4	651.3	750.9
45°	367.0	401.7	484.5	605.4	705.0
47.5°	322.3	346.9	429.7	560.6	655.7
50°	292.1	303.3	378.2	511.4	603.1
52.5°	265.2	274.2	331.2	462.1	551.7
55°	239.5	246.2	290.9	412.9	498.0
57.5°	217.1	220.4	255.1	363.7	439.8
60°	193.6	198.1	228.3	313.3	382.7
62.5°	174.6	176.8	204.8	265.2	325.6
65°	153.3	156.7	181.3	219.3	270.8
67.5°	134.3	139.9	156.7	179.0	213.7
70°	116.4	124.2	134.3	145.5	164.5
72.5°	99.6	108.5	114.1	118.6	115.3
75°	82.8	92.9	92.9	94.0	90.6
77.5°	67.1	76.1	75.0	73.9	69.4
80°	51.5	59.3	57.1	56.0	51.5
82.5°	38.0	43.6	41.4	40.3	34.7
85°	23.5	29.1	28.0	26.9	22.4
87.5°	11.2	16.8	15.7	14.5	10.1
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	14.80	16.28	15.16	16.60	16.91	18.54	20.02	18.90	20.34	20.65
	3H	16.47	17.80	16.84	18.13	18.49	19.66	21.00	20.04	21.32	21.69
	4H	17.13	18.38	17.53	18.73	19.11	19.96	21.21	20.36	21.56	21.94
	6H	17.64	18.79	18.05	19.16	19.55	20.16	21.31	20.57	21.68	22.07
	8H	17.81	18.91	18.24	19.30	19.70	20.21	21.31	20.64	21.70	22.10
	12H	17.93	18.98	18.37	19.37	19.80	20.25	21.30	20.68	21.68	22.11
4H	2H	15.59	16.84	15.99	17.19	17.57	18.70	19.95	19.10	20.30	20.68
	3H	17.46	18.50	17.87	18.90	19.30	20.03	21.07	20.44	21.47	21.87
	4H	18.27	19.20	18.70	19.61	20.05	20.45	21.38	20.88	21.80	22.24
	6H	18.91	19.72	19.37	20.16	20.62	20.77	21.58	21.23	22.02	22.49
	8H	19.13	19.89	19.60	20.33	20.80	20.87	21.62	21.33	22.07	22.54
	12H	19.30	19.97	19.78	20.45	20.92	20.94	21.61	21.42	22.09	22.56
8H	4H	18.61	19.37	19.08	19.82	20.28	20.58	21.34	21.05	21.78	22.25
	6H	19.40	20.03	19.90	20.52	21.00	21.00	21.63	21.50	22.12	22.60
	8H	19.72	20.28	20.24	20.79	21.28	21.16	21.72	21.67	22.23	22.72
	12H	19.99	20.48	20.50	20.97	21.54	21.30	21.80	21.81	22.29	22.85
12H	4H	18.65	19.32	19.13	19.80	20.27	20.59	21.26	21.07	21.74	22.21
	6H	19.47	20.03	19.98	20.54	21.03	21.02	21.59	21.54	22.10	22.59
	8H	19.85	20.35	20.36	20.84	21.41	21.23	21.73	21.74	22.22	22.79