

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: P1060713

Luminaire Tested: S124RDR-H1195D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060713
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-H1195D830-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, 80 CRI LEDS
Ballast/Driver: -

Summary

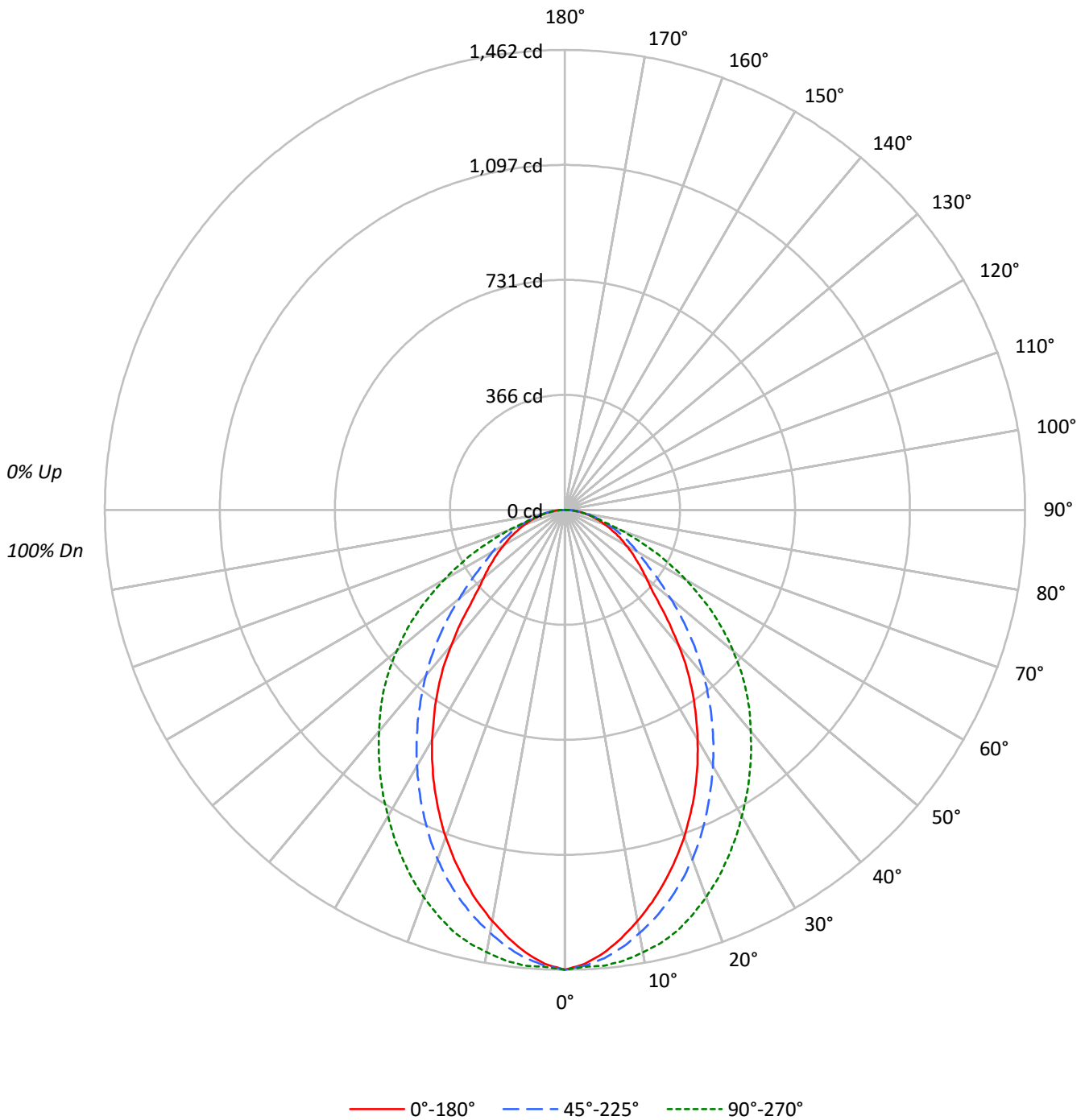
Lumens per Lamp: N/A
Luminaire Lumens: 2682.4 lumens
Efficiency: N/A
Efficacy: 73.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12588	12588	12588
5°	12223	12368	12569
10°	11606	11945	12488
15°	10910	11440	12340
20°	10148	10835	12009
25°	9305	10116	11615
30°	8387	9352	11178
35°	7425	8554	10757
40°	6311	7721	10325
45°	5167	6822	9925
50°	4523	5858	9341
55°	4156	5049	8643
60°	3854	4545	7619
65°	3611	4271	6380
70°	3386	3908	4789
75°	3184	3573	3487
80°	2951	3273	2951
85°	2687	3191	2559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9925 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.1	5.0
10°-20°	363.5	13.6
20°-30°	496.9	18.5
30°-40°	522.2	19.5
40°-50°	453.2	16.9
50°-60°	341.8	12.7
60°-70°	221.6	8.3
70°-80°	113.7	4.2
80°-90°	34.5	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°	995.5	37.1
0°-40°	1517.6	56.6
0°-60°	2312.6	86.2
0°-90°	2682.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2682.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1462	1462	1462	1462	1462	
5°	1414	1433	1431	1442	1454	132
15°	1224	1254	1283	1342	1384	343
25°	979	1014	1065	1146	1222	449
35°	706	745	814	922	1023	439
45°	424	464	560	700	815	334
55°	277	285	336	477	576	249
65°	177	181	210	254	313	176
75°	96	107	107	109	105	102
85°	27	34	32	31	26	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1461.8	1461.8	1461.8	1461.8	1461.8
2.5°	1445.0	1463.1	1450.2	1452.8	1454.1
5°	1414.0	1433.4	1430.8	1442.4	1454.1
7.5°	1373.9	1397.1	1402.3	1425.6	1445.0
10°	1327.3	1353.2	1366.1	1403.6	1428.2
12.5°	1278.1	1304.0	1327.3	1375.2	1410.1
15°	1223.8	1253.5	1283.3	1341.5	1384.2
17.5°	1166.9	1197.9	1235.4	1298.8	1349.3
20°	1107.4	1138.4	1182.4	1251.0	1310.5
22.5°	1044.0	1078.9	1125.5	1199.2	1269.1
25°	979.3	1014.2	1064.7	1146.2	1222.5
27.5°	912.0	948.2	1002.6	1093.1	1174.6
30°	843.5	882.3	940.5	1036.2	1124.2
32.5°	773.6	815.0	877.1	979.3	1075.0
35°	706.3	745.1	813.7	922.4	1023.3
37.5°	636.5	675.3	749.0	866.7	971.5
40°	561.4	604.1	686.9	808.5	918.5
42.5°	491.6	534.3	623.5	752.9	868.0
45°	424.3	464.4	560.2	699.9	815.0
47.5°	372.6	401.0	496.8	648.1	758.1
50°	337.6	350.6	437.3	591.2	697.3
52.5°	306.6	316.9	382.9	534.3	637.8
55°	276.8	284.6	336.3	477.4	575.7
57.5°	251.0	254.8	295.0	420.4	508.4
60°	223.8	229.0	263.9	362.2	442.4
62.5°	201.8	204.4	236.7	306.6	376.5
65°	177.2	181.1	209.6	253.6	313.1
67.5°	155.2	161.7	181.1	207.0	247.1
70°	134.5	143.6	155.2	168.2	190.2
72.5°	115.1	125.5	132.0	137.1	133.2
75°	95.7	107.4	107.4	108.7	104.8
77.5°	77.6	88.0	86.7	85.4	80.2
80°	59.5	68.6	66.0	64.7	59.5
82.5°	44.0	50.5	47.9	46.6	40.1
85°	27.2	33.6	32.3	31.0	25.9
87.5°	12.9	19.4	18.1	16.8	11.6
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	15.30	16.79	15.67	17.10	17.42	19.04	20.53	19.41	20.84	21.15
	3H	16.97	18.30	17.35	18.63	18.99	20.17	21.50	20.54	21.83	22.19
	4H	17.64	18.88	18.04	19.23	19.61	20.46	21.71	20.86	22.06	22.44
	6H	18.14	19.30	18.56	19.66	20.06	20.66	21.82	21.08	22.18	22.57
	8H	18.32	19.42	18.75	19.81	20.21	20.72	21.81	21.14	22.20	22.61
	12H	18.44	19.49	18.87	19.87	20.30	20.75	21.80	21.18	22.18	22.61
4H	2H	16.09	17.34	16.49	17.69	18.07	19.21	20.45	19.61	20.80	21.18
	3H	17.97	19.00	18.38	19.40	19.80	20.54	21.57	20.95	21.97	22.37
	4H	18.77	19.70	19.20	20.12	20.56	20.95	21.89	21.39	22.30	22.74
	6H	19.41	20.22	19.87	20.67	21.13	21.27	22.08	21.73	22.53	22.99
	8H	19.64	20.39	20.10	20.84	21.31	21.37	22.13	21.83	22.57	23.04
	12H	19.80	20.48	20.29	20.96	21.43	21.44	22.12	21.92	22.60	23.07
8H	4H	19.12	19.88	19.58	20.32	20.79	21.09	21.84	21.55	22.29	22.76
	6H	19.91	20.53	20.41	21.03	21.50	21.51	22.13	22.00	22.62	23.10
	8H	20.23	20.79	20.74	21.30	21.79	21.66	22.22	22.18	22.73	23.22
	12H	20.49	20.99	21.00	21.48	22.05	21.80	22.30	22.31	22.79	23.36
12H	4H	19.15	19.82	19.63	20.30	20.77	21.09	21.77	21.57	22.25	22.72
	6H	19.97	20.53	20.49	21.04	21.53	21.53	22.09	22.04	22.60	23.09
	8H	20.36	20.85	20.87	21.34	21.91	21.74	22.23	22.25	22.73	23.29