

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: P1058228

Luminaire Tested: S122RDR-H1005D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D850-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

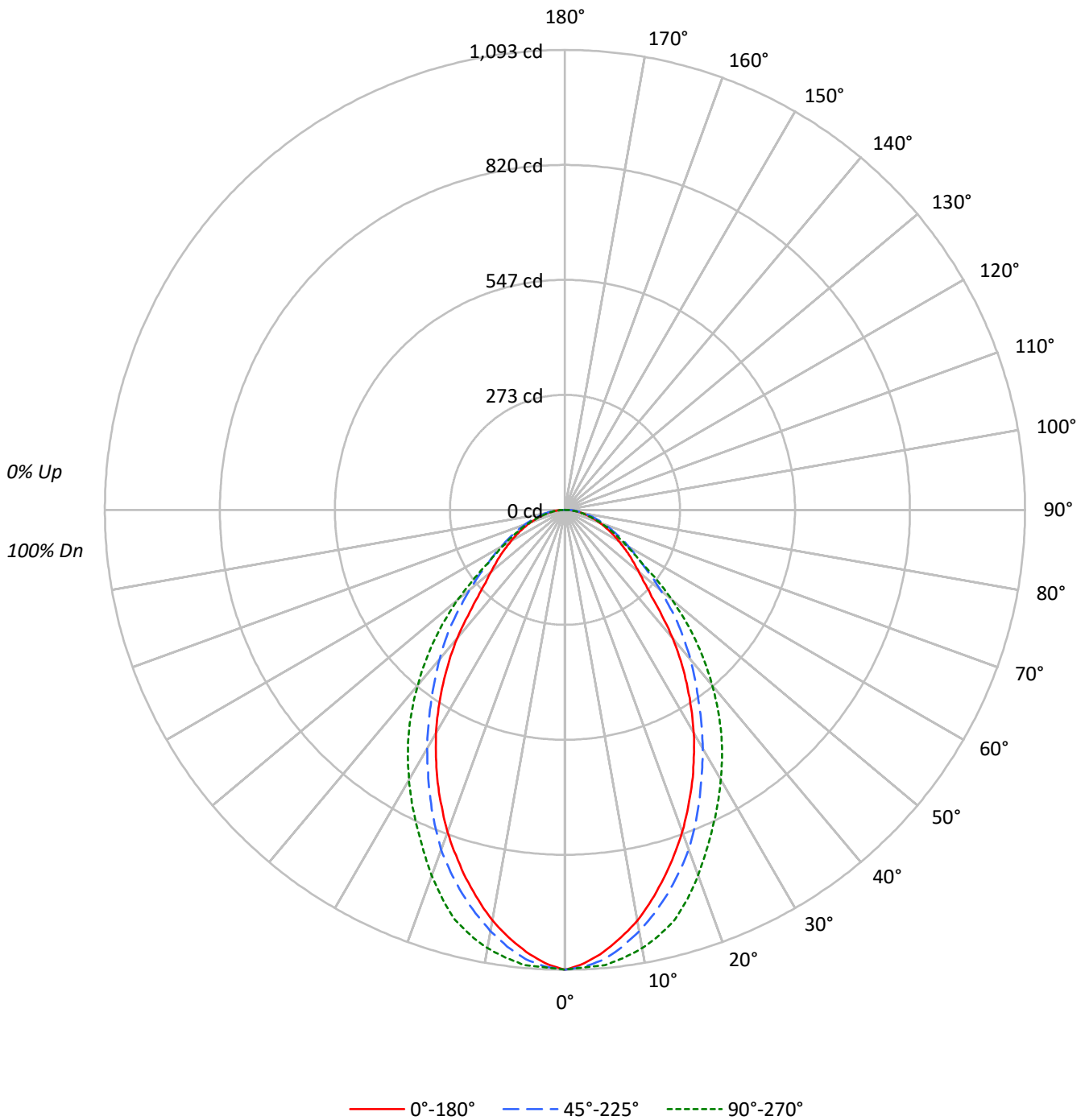
Lumens per Lamp: N/A
Luminaire Lumens: 1779.5 lumens
Efficiency: N/A
Efficacy: 48.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20165	20165	20165
5°	19536	19860	20125
10°	18574	19050	19822
15°	17331	18028	19270
20°	16008	16880	18158
25°	14564	15404	16921
30°	13044	13956	15782
35°	11362	12468	14577
40°	9589	11155	13104
45°	7615	9851	11464
50°	6557	8469	9516
55°	5971	7245	7296
60°	5443	6440	6204
65°	4986	5816	5471
70°	4618	5390	4877
75°	4299	5090	4299
80°	4049	4888	3879
85°	4023	5039	3366

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11464 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	5.7
10°-20°	266.7	15.0
20°-30°	350.9	19.7
30°-40°	352.9	19.8
40°-50°	286.0	16.1
50°-60°	197.0	11.1
60°-70°	128.9	7.2
70°-80°	71.8	4.0
80°-90°	24.3	1.4
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°	718.5	40.4
0°-40°	1071.4	60.2
0°-60°	1554.4	87.4
0°-90°	1779.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1779.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1093	1093	1093	1093	1093	
5°	1055	1075	1072	1077	1086	99
15°	907	929	944	979	1009	254
25°	715	734	757	790	831	328
35°	504	528	554	603	647	315
45°	292	325	378	411	439	231
55°	186	206	225	230	227	166
65°	114	136	133	127	125	114
75°	60	74	71	63	60	64
85°	19	25	24	21	16	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1092.8	1092.8	1092.8	1092.8	1092.8
2.5°	1078.5	1097.6	1086.5	1086.5	1088.0
5°	1054.7	1075.4	1072.2	1076.9	1086.5
7.5°	1024.6	1046.8	1046.8	1061.1	1073.8
10°	991.3	1013.5	1016.7	1038.9	1057.9
12.5°	950.1	972.3	981.8	1010.3	1035.7
15°	907.2	929.4	943.7	978.6	1008.7
17.5°	861.2	883.4	902.5	939.0	969.1
20°	815.2	835.9	859.6	891.4	924.7
22.5°	764.5	786.7	808.9	839.0	877.1
25°	715.3	734.3	756.6	789.9	831.1
27.5°	663.0	683.6	704.2	743.9	786.7
30°	612.2	632.8	655.0	696.3	740.7
32.5°	558.3	580.5	602.7	648.7	694.7
35°	504.4	528.2	553.5	602.7	647.1
37.5°	452.0	477.4	507.5	558.3	596.4
40°	398.1	425.1	463.1	507.5	544.0
42.5°	341.0	374.3	420.3	458.4	491.7
45°	291.8	325.1	377.5	410.8	439.3
47.5°	255.4	282.3	333.1	361.6	385.4
50°	228.4	249.0	295.0	315.6	331.5
52.5°	206.2	226.8	258.5	272.8	277.6
55°	185.6	206.2	225.2	230.0	226.8
57.5°	165.0	187.2	198.3	193.5	193.5
60°	147.5	171.3	174.5	168.1	168.1
62.5°	130.1	153.8	153.8	145.9	145.9
65°	114.2	136.4	133.2	126.9	125.3
67.5°	99.9	120.5	115.8	109.4	107.9
70°	85.6	104.7	99.9	92.0	90.4
72.5°	73.0	90.4	84.1	77.7	74.5
75°	60.3	74.5	71.4	63.4	60.3
77.5°	49.2	60.3	57.1	50.8	47.6
80°	38.1	47.6	46.0	39.7	36.5
82.5°	28.5	36.5	34.9	30.1	25.4
85°	19.0	25.4	23.8	20.6	15.9
87.5°	9.5	17.4	15.9	14.3	7.9
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	17.17	18.61	17.53	18.92	19.24	17.53	18.97	17.89	19.28	19.59
	3H	18.71	20.00	19.09	20.33	20.69	18.87	20.16	19.25	20.49	20.85
	4H	19.28	20.49	19.68	20.84	21.22	19.35	20.56	19.75	20.91	21.29
	6H	19.71	20.83	20.13	21.20	21.59	19.71	20.82	20.12	21.19	21.58
	8H	19.87	20.93	20.29	21.32	21.72	19.83	20.89	20.25	21.28	21.68
	12H	19.98	21.00	20.41	21.38	21.81	19.90	20.92	20.33	21.30	21.73
4H	2H	17.75	18.96	18.15	19.31	19.69	18.04	19.25	18.44	19.60	19.98
	3H	19.57	20.58	19.99	20.98	21.38	19.61	20.61	20.02	21.02	21.42
	4H	20.32	21.22	20.75	21.64	22.08	20.22	21.12	20.65	21.53	21.97
	6H	20.91	21.69	21.37	22.14	22.60	20.70	21.48	21.16	21.93	22.39
	8H	21.12	21.85	21.58	22.30	22.76	20.86	21.60	21.33	22.04	22.51
	12H	21.29	21.94	21.77	22.42	22.89	20.99	21.64	21.47	22.12	22.59
8H	4H	20.61	21.34	21.07	21.78	22.25	20.52	21.25	20.98	21.69	22.16
	6H	21.36	21.97	21.86	22.46	22.94	21.14	21.74	21.64	22.23	22.71
	8H	21.69	22.23	22.20	22.74	23.23	21.39	21.93	21.90	22.44	22.93
	12H	21.97	22.45	22.48	22.94	23.51	21.60	22.08	22.11	22.57	23.14
12H	4H	20.63	21.28	21.11	21.76	22.23	20.55	21.21	21.04	21.68	22.16
	6H	21.42	21.97	21.94	22.48	22.97	21.21	21.76	21.73	22.27	22.76
	8H	21.82	22.30	22.33	22.79	23.36	21.53	22.01	22.04	22.51	23.07