

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: P1058598

Luminaire Tested: S122RDR-H865D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D950-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

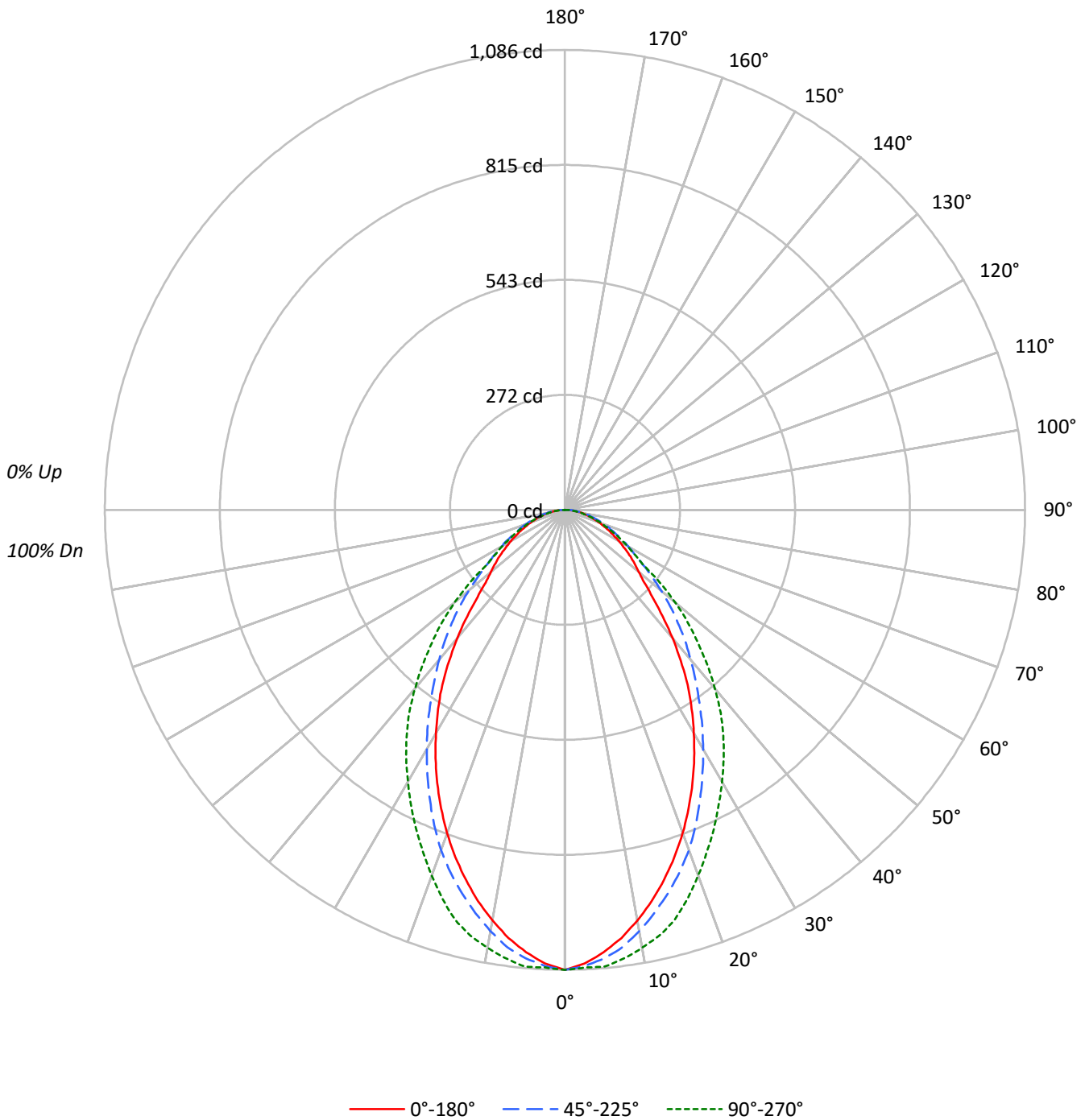
Lumens per Lamp: N/A
Luminaire Lumens: 1770.9 lumens
Efficiency: N/A
Efficacy: 56.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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

TEST NUMBER: P1058598

CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058598

CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-WVL-W

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20045	20045	20045
5°	19429	19688	20057
10°	18449	18930	19676
15°	17271	17917	19145
20°	15963	16789	18050
25°	14507	15362	16931
30°	12965	13888	15803
35°	11367	12446	14683
40°	9510	11114	13251
45°	7620	9846	11581
50°	6539	8483	9723
55°	5974	7216	7177
60°	5432	6381	6252
65°	4947	5711	5458
70°	4537	5228	4850
75°	4249	4827	4249
80°	3974	4463	3719
85°	3959	4700	3218

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11581 cd/sqm



TEST NUMBER: P1058598

CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.3	5.7
10°-20°	265.5	15.0
20°-30°	350.2	19.8
30°-40°	352.6	19.9
40°-50°	287.0	16.2
50°-60°	195.7	11.0
60°-70°	127.0	7.2
70°-80°	69.9	3.9
80°-90°	22.8	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°	715.9	40.4
0°-40°	1068.5	60.3
0°-60°	1551.2	87.6
0°-90°	1770.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1770.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1086	1086	1086	1086	1086	
5°	1049	1069	1063	1072	1083	98
15°	904	927	938	976	1002	253
25°	712	736	754	788	832	327
35°	505	530	552	600	652	313
45°	292	328	377	410	444	230
55°	186	204	224	225	223	166
65°	113	134	131	124	125	113
75°	60	74	68	61	60	63
85°	19	24	22	18	15	20
90°	0	0	0	0	0	



TEST NUMBER: P1058598

CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1086.3	1086.3	1086.3	1086.3	1086.3
2.5°	1072.2	1089.8	1078.1	1079.3	1081.6
5°	1048.9	1068.7	1062.9	1072.2	1082.8
7.5°	1019.7	1039.5	1041.9	1055.9	1068.7
10°	984.6	1006.8	1010.3	1031.4	1050.1
12.5°	946.1	970.6	975.3	1005.7	1030.2
15°	904.1	927.4	937.9	976.5	1002.2
17.5°	859.7	881.9	898.2	933.3	962.5
20°	812.9	834.0	855.0	886.5	919.2
22.5°	762.7	786.1	805.9	837.5	874.9
25°	712.5	735.9	754.5	788.4	831.6
27.5°	661.1	684.5	703.2	739.4	786.1
30°	608.5	633.1	651.8	692.6	741.7
32.5°	557.1	581.7	602.7	645.9	697.3
35°	504.6	530.3	552.5	600.4	651.8
37.5°	448.5	477.7	505.8	553.6	603.9
40°	394.8	427.5	461.4	505.8	550.1
42.5°	341.1	377.3	419.3	456.7	497.6
45°	292.0	328.2	377.3	410.0	443.8
47.5°	253.5	283.8	336.4	363.3	393.6
50°	227.8	248.8	295.5	316.5	338.7
52.5°	206.7	224.3	257.0	271.0	282.7
55°	185.7	204.4	224.3	225.4	223.1
57.5°	164.7	185.7	196.2	188.1	192.7
60°	147.2	168.2	172.9	164.7	169.4
62.5°	128.5	151.8	151.8	143.7	146.0
65°	113.3	134.3	130.8	123.8	125.0
67.5°	98.1	119.1	113.3	106.3	106.3
70°	84.1	104.0	96.9	89.9	89.9
72.5°	71.2	87.6	82.9	74.8	73.6
75°	59.6	73.6	67.7	60.7	59.6
77.5°	47.9	59.6	54.9	49.1	46.7
80°	37.4	47.9	42.0	37.4	35.0
82.5°	28.0	36.2	31.5	26.9	24.5
85°	18.7	24.5	22.2	17.5	15.2
87.5°	9.3	16.4	14.0	11.7	9.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058598
 CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-WVL-W

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	17.13	18.57	17.50	18.89	19.20	17.38	18.82	17.75	19.13	19.45
	3H	18.66	19.95	19.04	20.28	20.64	18.74	20.03	19.12	20.36	20.72
	4H	19.22	20.43	19.63	20.78	21.16	19.22	20.43	19.62	20.78	21.16
	6H	19.65	20.76	20.06	21.13	21.52	19.57	20.68	19.98	21.05	21.44
	8H	19.80	20.86	20.23	21.25	21.65	19.68	20.73	20.11	21.13	21.53
	12H	19.91	20.93	20.35	21.31	21.74	19.75	20.76	20.18	21.14	21.57
4H	2H	17.71	18.91	18.11	19.26	19.64	17.91	19.11	18.31	19.46	19.84
	3H	19.51	20.51	19.92	20.91	21.31	19.48	20.48	19.89	20.88	21.28
	4H	20.25	21.15	20.69	21.57	22.01	20.07	20.97	20.51	21.39	21.83
	6H	20.84	21.62	21.30	22.06	22.53	20.54	21.32	21.00	21.77	22.23
	8H	21.05	21.78	21.51	22.22	22.69	20.69	21.42	21.16	21.87	22.34
	12H	21.21	21.86	21.70	22.34	22.82	20.80	21.45	21.29	21.93	22.40
8H	4H	20.52	21.25	20.98	21.69	22.16	20.36	21.09	20.83	21.54	22.01
	6H	21.27	21.87	21.77	22.37	22.85	20.96	21.56	21.45	22.05	22.53
	8H	21.60	22.14	22.12	22.65	23.14	21.18	21.72	21.69	22.23	22.72
	12H	21.88	22.36	22.39	22.85	23.42	21.36	21.84	21.87	22.33	22.90
12H	4H	20.53	21.18	21.02	21.66	22.13	20.40	21.05	20.88	21.53	22.00
	6H	21.32	21.86	21.84	22.37	22.86	21.02	21.56	21.54	22.08	22.56
	8H	21.72	22.19	22.23	22.69	23.25	21.31	21.79	21.82	22.28	22.85