

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058139

Luminaire Tested: S122RDRP-S865D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058139
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: S122RDRP-S865D840-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

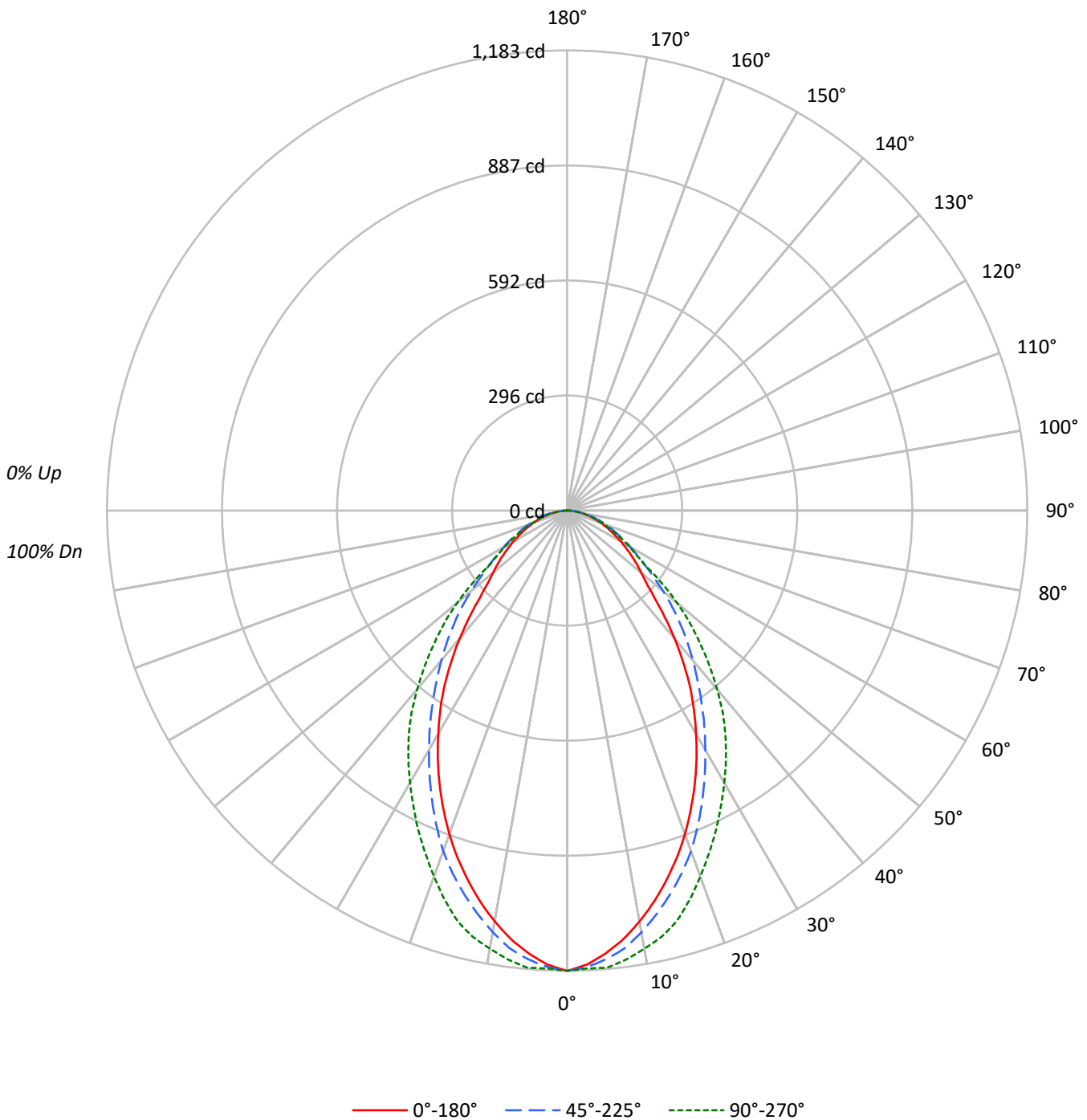
Lumens per Lamp: N/A
Luminaire Lumens: 1929.0 lumens
Efficiency: N/A
Efficacy: 55.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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: P1058139

CATALOG NUMBER: S122RDRP-S865D840-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058139

CATALOG NUMBER: S122RDRP-S865D840-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	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	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	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	46	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	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21833	21833	21833
5°	21162	21446	21846
10°	20096	20620	21432
15°	18811	19516	20853
20°	17388	18288	19662
25°	15801	16734	18444
30°	14124	15126	17214
35°	12380	13556	15991
40°	10358	12107	14434
45°	8301	10723	12617
50°	7122	9241	10593
55°	6508	7859	7818
60°	5916	6949	6809
65°	5388	6222	5942
70°	4942	5697	5287
75°	4627	5262	4627
80°	4325	4867	4059
85°	4319	5124	3493

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12617 cd/sqm



TEST NUMBER: P1058139

CATALOG NUMBER: S122RDRP-S865D840-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	5.7
10°-20°	289.2	15.0
20°-30°	381.4	19.8
30°-40°	384.1	19.9
40°-50°	312.6	16.2
50°-60°	213.1	11.0
60°-70°	138.4	7.2
70°-80°	76.2	3.9
80°-90°	24.9	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°	779.8	40.4
0°-40°	1163.9	60.3
0°-60°	1689.6	87.6
0°-90°	1929.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1929.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1183	1183	1183	1183	1183	
5°	1142	1164	1158	1168	1179	107
15°	985	1010	1022	1064	1092	276
25°	776	802	822	859	906	356
35°	550	578	602	654	710	341
45°	318	358	411	447	484	251
55°	202	223	244	246	243	181
65°	123	146	142	135	136	123
75°	65	80	74	66	65	69
85°	20	27	24	19	16	22
90°	0	0	0	0	0	



TEST NUMBER: P1058139

CATALOG NUMBER: S122RDRP-S865D840-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1183.2	1183.2	1183.2	1183.2	1183.2
2.5°	1168.0	1187.0	1174.3	1175.6	1178.1
5°	1142.5	1164.1	1157.8	1168.0	1179.4
7.5°	1110.7	1132.3	1134.9	1150.1	1164.1
10°	1072.5	1096.7	1100.5	1123.4	1143.8
12.5°	1030.5	1057.3	1062.4	1095.4	1122.2
15°	984.7	1010.2	1021.6	1063.6	1091.6
17.5°	936.4	960.6	978.4	1016.6	1048.4
20°	885.5	908.4	931.3	965.7	1001.3
22.5°	830.8	856.2	877.9	912.2	952.9
25°	776.1	801.5	821.9	858.8	905.9
27.5°	720.1	745.6	765.9	805.4	856.2
30°	662.9	689.6	709.9	754.5	807.9
32.5°	606.9	633.6	656.5	703.6	759.6
35°	549.6	577.6	601.8	654.0	709.9
37.5°	488.6	520.4	550.9	603.1	657.8
40°	430.0	465.7	502.6	550.9	599.2
42.5°	371.5	410.9	456.7	497.5	542.0
45°	318.1	357.5	410.9	446.6	483.5
47.5°	276.1	309.2	366.4	395.7	428.8
50°	248.1	271.0	321.9	344.8	369.0
52.5°	225.2	244.3	279.9	295.2	307.9
55°	202.3	222.6	244.3	245.6	243.0
57.5°	179.4	202.3	213.7	204.8	209.9
60°	160.3	183.2	188.3	179.4	184.5
62.5°	140.0	165.4	165.4	156.5	159.0
65°	123.4	146.3	142.5	134.9	136.1
67.5°	106.9	129.8	123.4	115.8	115.8
70°	91.6	113.2	105.6	98.0	98.0
72.5°	77.6	95.4	90.3	81.4	80.2
75°	64.9	80.2	73.8	66.2	64.9
77.5°	52.2	64.9	59.8	53.4	50.9
80°	40.7	52.2	45.8	40.7	38.2
82.5°	30.5	39.4	34.4	29.3	26.7
85°	20.4	26.7	24.2	19.1	16.5
87.5°	10.2	17.8	15.3	12.7	10.2
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1058139

CATALOG NUMBER: S122RDRP-S865D840-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	17.43	18.87	17.80	19.18	19.50	17.68	19.12	18.04	19.43	19.74
	3H	18.96	20.25	19.34	20.58	20.94	19.04	20.32	19.42	20.65	21.02
	4H	19.52	20.73	19.92	21.08	21.46	19.52	20.72	19.92	21.07	21.45
	6H	19.95	21.06	20.36	21.43	21.82	19.87	20.98	20.28	21.35	21.74
	8H	20.10	21.16	20.53	21.55	21.95	19.98	21.03	20.40	21.42	21.82
	12H	20.21	21.22	20.64	21.61	22.04	20.04	21.06	20.47	21.44	21.87
4H	2H	18.00	19.21	18.40	19.56	19.94	18.20	19.41	18.60	19.76	20.14
	3H	19.81	20.81	20.22	21.21	21.61	19.78	20.78	20.19	21.18	21.58
	4H	20.55	21.45	20.98	21.86	22.30	20.37	21.27	20.80	21.69	22.13
	6H	21.14	21.92	21.60	22.36	22.82	20.84	21.62	21.30	22.06	22.53
	8H	21.35	22.08	21.81	22.52	22.99	20.99	21.72	21.46	22.16	22.63
	12H	21.51	22.16	22.00	22.64	23.11	21.10	21.75	21.58	22.23	22.70
8H	4H	20.82	21.54	21.28	21.99	22.46	20.66	21.39	21.13	21.84	22.30
	6H	21.57	22.17	22.07	22.67	23.14	21.25	21.85	21.75	22.35	22.83
	8H	21.90	22.44	22.41	22.95	23.44	21.47	22.01	21.99	22.53	23.02
	12H	22.18	22.65	22.69	23.15	23.71	21.66	22.13	22.17	22.63	23.19
12H	4H	20.83	21.48	21.31	21.96	22.43	20.70	21.35	21.18	21.83	22.30
	6H	21.62	22.16	22.13	22.67	23.16	21.32	21.86	21.84	22.37	22.86
	8H	22.01	22.49	22.52	22.98	23.55	21.61	22.08	22.12	22.58	23.14