

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: P1056383

Luminaire Tested: S125R3DR-S1090D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056383
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S1090D950-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

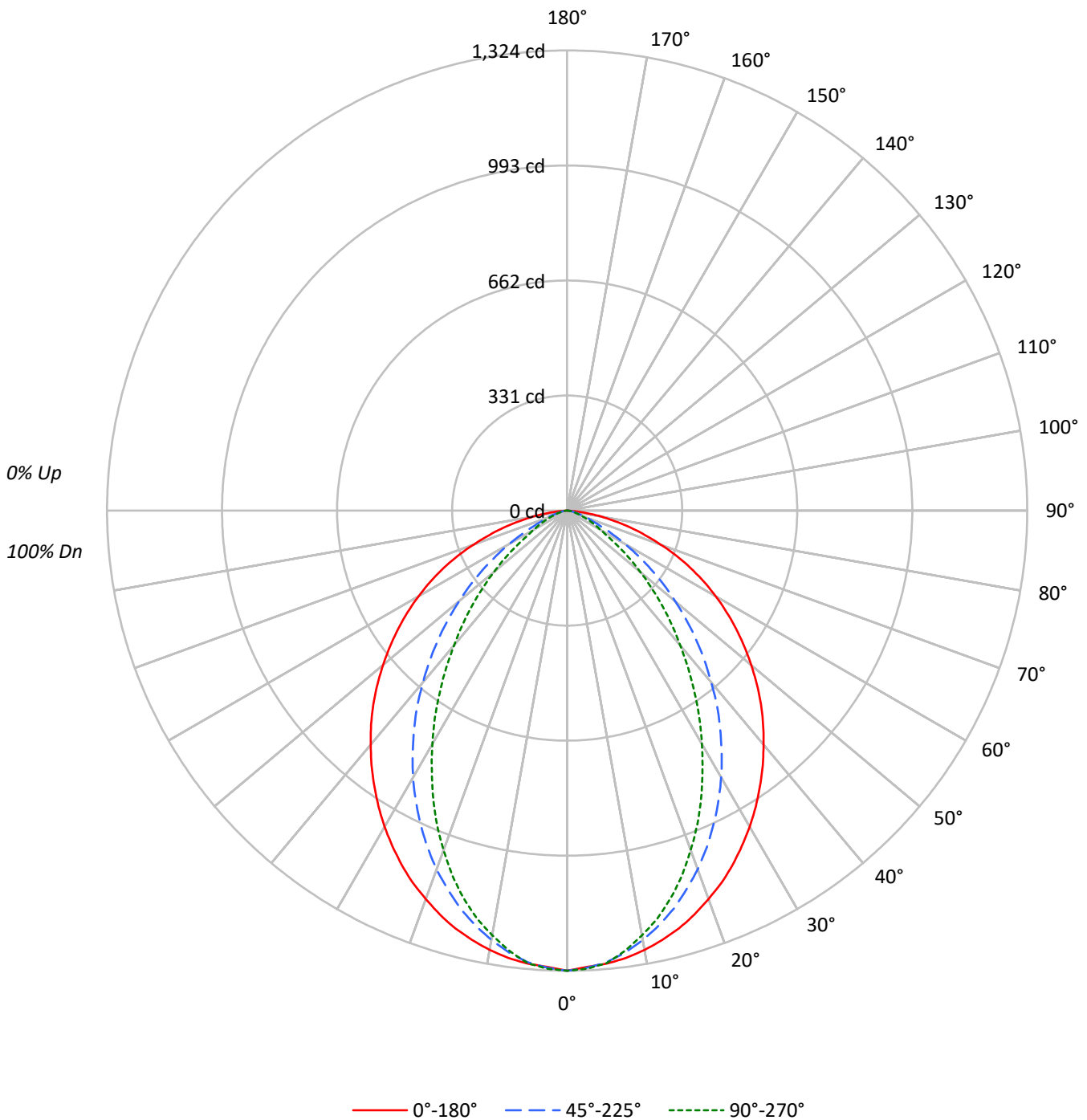
Lumens per Lamp: N/A
Luminaire Lumens: 2393.1 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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: P1056383

CATALOG NUMBER: S125R3DR-S1090D950-X4F0-XX-UDD-F-S

Luminous Intensity Polar Plot





TEST NUMBER: P1056383

CATALOG NUMBER: S125R3DR-S1090D950-X4F0-XX-UDD-F-S

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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	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	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9360	9360	9360
5°	9283	9256	9274
10°	9214	9002	8906
15°	9107	8676	8443
20°	8946	8264	7821
25°	8778	7774	7115
30°	8576	7236	6334
35°	8348	6623	5512
40°	8112	5951	4661
45°	7881	5246	3861
50°	7604	4463	3033
55°	7314	3626	2206
60°	6986	2703	1578
65°	6562	1785	1231
70°	5930	1242	862
75°	5157	803	669
80°	4043	598	550
85°	2085	495	397

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7881 cd/sqm



TEST NUMBER: P1056383

CATALOG NUMBER: S125R3DR-S1090D950-X4F0-XX-UDD-F-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.3	5.2
10°-20°	335.3	14.0
20°-30°	463.6	19.4
30°-40°	491.2	20.5
40°-50°	428.7	17.9
50°-60°	304.9	12.7
60°-70°	169.6	7.1
70°-80°	65.2	2.7
80°-90°	11.3	0.5
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°	922.2	38.5
0°-40°	1413.4	59.1
0°-60°	2147.0	89.7
0°-90°	2393.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2393.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1308	1318	1304	1301	1307	124
15°	1244	1233	1186	1160	1154	350
25°	1125	1087	997	935	912	518
35°	967	901	767	674	639	605
45°	788	694	525	419	386	608
55°	593	476	294	204	179	531
65°	392	257	107	78	74	388
75°	189	74	29	24	24	200
85°	26	7	6	5	5	38
90°	0	0	0	0	0	



TEST NUMBER: P1056383

CATALOG NUMBER: S125R3DR-S1090D950-X4F0-XX-UDD-F-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1324.0	1324.0	1324.0	1324.0	1324.0
2.5°	1314.2	1327.7	1316.7	1317.9	1319.1
5°	1308.1	1317.9	1304.4	1300.7	1306.9
7.5°	1298.3	1305.6	1282.3	1273.8	1277.4
10°	1283.6	1286.0	1254.1	1241.9	1240.7
12.5°	1265.2	1261.5	1222.3	1202.7	1201.4
15°	1244.3	1233.3	1185.5	1159.8	1153.6
17.5°	1218.6	1201.4	1142.6	1109.5	1099.7
20°	1189.2	1165.9	1098.5	1055.5	1039.6
22.5°	1159.8	1127.9	1049.4	995.5	978.3
25°	1125.4	1087.4	996.7	935.4	912.1
27.5°	1088.6	1043.3	942.8	871.7	843.5
30°	1050.6	997.9	886.4	806.7	776.0
32.5°	1010.2	950.1	827.5	740.5	708.6
35°	967.3	901.1	767.4	674.3	638.7
37.5°	924.4	850.8	708.6	609.3	572.5
40°	879.0	799.3	644.9	543.1	505.1
42.5°	834.9	746.6	584.8	480.6	446.2
45°	788.3	693.9	524.7	419.3	386.2
47.5°	740.5	638.7	464.6	361.7	328.6
50°	691.4	584.8	405.8	305.3	275.8
52.5°	642.4	530.8	350.6	251.3	225.6
55°	593.4	475.7	294.2	203.5	179.0
57.5°	544.3	421.7	241.5	159.4	137.3
60°	494.1	366.6	191.2	117.7	111.6
62.5°	443.8	312.6	148.3	96.9	91.9
65°	392.3	257.4	106.7	78.5	73.6
67.5°	340.8	207.2	77.2	60.1	56.4
70°	286.9	158.1	60.1	45.4	41.7
72.5°	235.4	114.0	42.9	33.1	31.9
75°	188.8	73.6	29.4	24.5	24.5
77.5°	142.2	44.1	20.8	18.4	18.4
80°	99.3	25.7	14.7	13.5	13.5
82.5°	60.1	13.5	9.8	8.6	8.6
85°	25.7	7.4	6.1	4.9	4.9
87.5°	4.9	2.5	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056383
 CATALOG NUMBER: S125R3DR-S1090D950-X4F0-XX-UDD-F-S

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	18.93	20.38	19.30	20.69	21.00	11.57	13.02	11.94	13.33	13.64
	3H	20.49	21.78	20.87	22.11	22.47	12.13	13.42	12.51	13.75	14.11
	4H	21.01	22.21	21.41	22.56	22.94	12.26	13.46	12.66	13.81	14.19
	6H	21.35	22.46	21.76	22.82	23.22	12.32	13.43	12.74	13.80	14.19
	8H	21.43	22.48	21.86	22.87	23.28	12.33	13.38	12.76	13.77	14.17
	12H	21.46	22.46	21.89	22.84	23.27	12.32	13.32	12.75	13.71	14.14
4H	2H	18.83	20.03	19.23	20.38	20.76	12.14	13.34	12.54	13.69	14.07
	3H	20.49	21.48	20.91	21.88	22.29	12.81	13.80	13.22	14.20	14.60
	4H	21.04	21.93	21.48	22.34	22.78	12.97	13.85	13.40	14.27	14.71
	6H	21.44	22.20	21.90	22.64	23.11	13.08	13.84	13.54	14.29	14.75
	8H	21.54	22.25	22.01	22.70	23.17	13.09	13.80	13.56	14.25	14.72
	12H	21.59	22.22	22.07	22.70	23.17	13.09	13.72	13.58	14.21	14.68
8H	4H	20.95	21.66	21.41	22.11	22.57	13.23	13.95	13.70	14.39	14.86
	6H	21.33	21.92	21.83	22.41	22.89	13.37	13.95	13.87	14.45	14.93
	8H	21.44	21.97	21.96	22.48	22.97	13.40	13.92	13.91	14.43	14.92
	12H	21.50	21.97	22.02	22.46	23.03	13.42	13.88	13.93	14.38	14.94
12H	4H	20.91	21.54	21.39	22.02	22.50	13.25	13.88	13.73	14.36	14.84
	6H	21.28	21.81	21.80	22.32	22.81	13.38	13.91	13.90	14.42	14.91
	8H	21.41	21.87	21.92	22.37	22.93	13.44	13.90	13.95	14.40	14.96