

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: P1056515

Luminaire Tested: S125R3DR-H1090D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056515
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-H1090D940-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

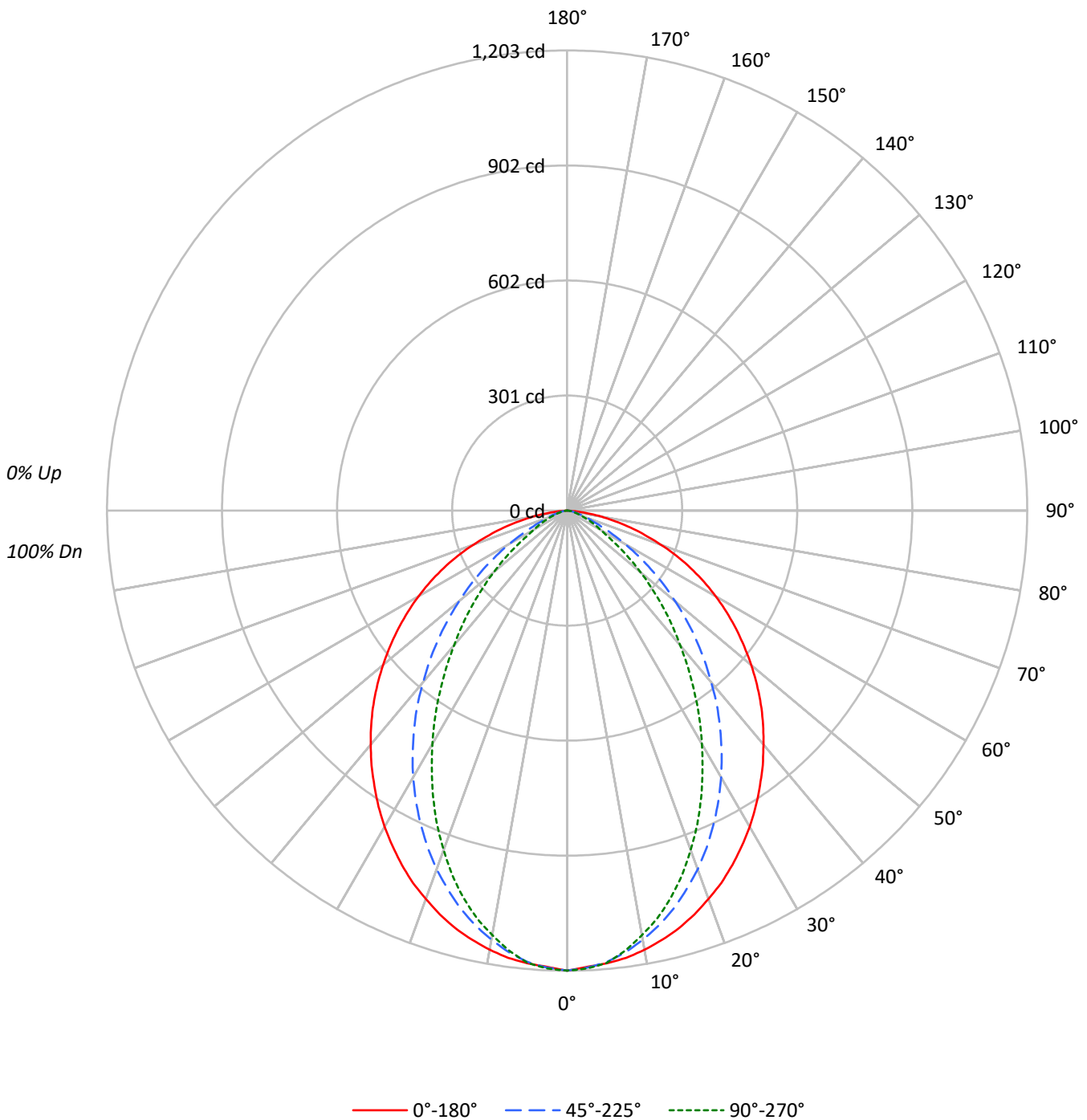
Lumens per Lamp: N/A
Luminaire Lumens: 2173.8 lumens
Efficiency: N/A
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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	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°	8502	8502	8502
5°	8432	8408	8424
10°	8369	8178	8090
15°	8272	7882	7669
20°	8126	7506	7104
25°	7974	7062	6462
30°	7791	6572	5754
35°	7582	6016	5007
40°	7369	5406	4234
45°	7159	4765	3507
50°	6908	4054	2756
55°	6643	3294	2004
60°	6345	2456	1432
65°	5962	1621	1117
70°	5386	1129	783
75°	4684	729	609
80°	3672	546	497
85°	1898	454	365

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7159 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.0	5.2
10°-20°	304.6	14.0
20°-30°	421.1	19.4
30°-40°	446.2	20.5
40°-50°	389.4	17.9
50°-60°	277.0	12.7
60°-70°	154.0	7.1
70°-80°	59.2	2.7
80°-90°	10.3	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°	837.7	38.5
0°-40°	1283.9	59.1
0°-60°	1950.3	89.7
0°-90°	2173.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2173.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1203	1203	1203	1203	1203	
5°	1188	1197	1185	1182	1187	113
15°	1130	1120	1077	1054	1048	318
25°	1022	988	905	850	828	471
35°	879	818	697	612	580	550
45°	716	630	477	381	351	552
55°	539	432	267	185	163	482
65°	356	234	97	71	67	352
75°	172	67	27	22	22	182
85°	23	7	6	4	4	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1202.7	1202.7	1202.7	1202.7	1202.7
2.5°	1193.8	1206.0	1196.0	1197.1	1198.2
5°	1188.2	1197.1	1184.9	1181.5	1187.1
7.5°	1179.3	1186.0	1164.8	1157.0	1160.4
10°	1165.9	1168.2	1139.2	1128.1	1127.0
12.5°	1149.2	1145.9	1110.3	1092.4	1091.3
15°	1130.3	1120.3	1076.9	1053.5	1047.9
17.5°	1106.9	1091.3	1037.9	1007.8	998.9
20°	1080.2	1059.0	997.8	958.8	944.3
22.5°	1053.5	1024.5	953.2	904.2	888.7
25°	1022.3	987.8	905.4	849.7	828.5
27.5°	988.9	947.7	856.4	791.8	766.2
30°	954.4	906.5	805.1	732.8	704.9
32.5°	917.6	863.0	751.7	672.6	643.7
35°	878.6	818.5	697.1	612.5	580.2
37.5°	839.7	772.8	643.7	553.5	520.1
40°	798.5	726.1	585.8	493.3	458.8
42.5°	758.4	678.2	531.2	436.5	405.4
45°	716.1	630.3	476.6	380.9	350.8
47.5°	672.6	580.2	422.1	328.5	298.4
50°	628.1	531.2	368.6	277.3	250.6
52.5°	583.5	482.2	318.5	228.3	204.9
55°	539.0	432.1	267.3	184.9	162.6
57.5°	494.4	383.1	219.4	144.8	124.7
60°	448.8	333.0	173.7	106.9	101.3
62.5°	403.1	284.0	134.7	88.0	83.5
65°	356.4	233.9	96.9	71.3	66.8
67.5°	309.6	188.2	70.2	54.6	51.2
70°	260.6	143.7	54.6	41.2	37.9
72.5°	213.8	103.6	39.0	30.1	29.0
75°	171.5	66.8	26.7	22.3	22.3
77.5°	129.2	40.1	18.9	16.7	16.7
80°	90.2	23.4	13.4	12.2	12.2
82.5°	54.6	12.2	8.9	7.8	7.8
85°	23.4	6.7	5.6	4.5	4.5
87.5°	4.5	2.2	2.2	2.2	2.2
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	18.60	20.04	18.96	20.36	20.67	11.24	12.68	11.60	12.99	13.31
	3H	20.16	21.44	20.54	21.77	22.14	11.80	13.09	12.18	13.42	13.78
	4H	20.68	21.88	21.08	22.23	22.61	11.92	13.13	12.33	13.48	13.86
	6H	21.02	22.12	21.43	22.49	22.88	11.99	13.10	12.40	13.46	13.86
	8H	21.10	22.15	21.53	22.54	22.94	11.99	13.05	12.42	13.44	13.84
	12H	21.12	22.13	21.55	22.51	22.94	11.99	12.99	12.42	13.37	13.80
4H	2H	18.49	19.70	18.90	20.05	20.43	11.80	13.00	12.20	13.35	13.73
	3H	20.16	21.15	20.57	21.55	21.95	12.47	13.46	12.89	13.86	14.27
	4H	20.71	21.59	21.14	22.01	22.45	12.63	13.52	13.07	13.93	14.37
	6H	21.10	21.87	21.56	22.31	22.77	12.74	13.51	13.20	13.95	14.41
	8H	21.21	21.92	21.67	22.37	22.84	12.75	13.47	13.22	13.91	14.38
	12H	21.26	21.89	21.74	22.37	22.84	12.76	13.39	13.24	13.87	14.34
8H	4H	20.61	21.33	21.08	21.77	22.24	12.90	13.61	13.37	14.06	14.53
	6H	21.00	21.59	21.50	22.08	22.56	13.03	13.62	13.53	14.11	14.59
	8H	21.11	21.63	21.63	22.15	22.64	13.06	13.59	13.58	14.10	14.59
	12H	21.17	21.63	21.68	22.13	22.70	13.08	13.55	13.60	14.04	14.61
12H	4H	20.58	21.21	21.06	21.69	22.16	12.92	13.55	13.40	14.03	14.50
	6H	20.95	21.47	21.47	21.99	22.48	13.05	13.57	13.56	14.08	14.57
	8H	21.08	21.54	21.59	22.03	22.60	13.10	13.57	13.62	14.06	14.63