

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: P1056569

Luminaire Tested: S125R3DR-H375D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056569
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-H375D940-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

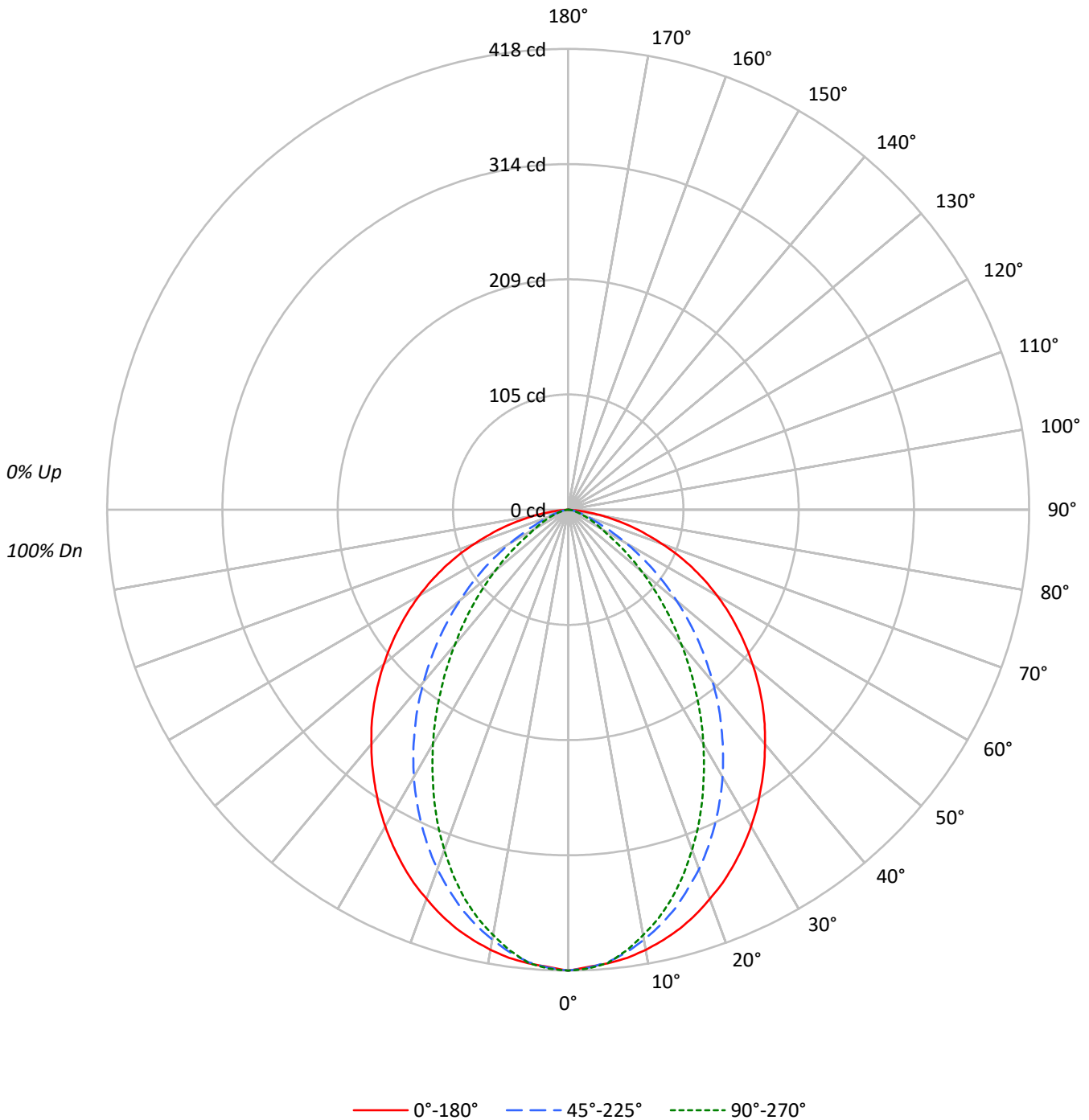
Lumens per Lamp: N/A
Luminaire Lumens: 755.8 lumens
Efficiency: N/A
Efficacy: 64.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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: P1056569

CATALOG NUMBER: S125R3DR-H375D940-X4F0-XX-UDD-F-S

Luminous Intensity Polar Plot





TEST NUMBER: P1056569

CATALOG NUMBER: S125R3DR-H375D940-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°	2956	2956	2956
5°	2931	2924	2929
10°	2910	2843	2812
15°	2876	2740	2666
20°	2826	2610	2470
25°	2772	2455	2247
30°	2708	2285	2001
35°	2636	2092	1741
40°	2562	1880	1472
45°	2489	1657	1220
50°	2402	1410	958
55°	2310	1145	696
60°	2206	854	498
65°	2073	564	388
70°	1873	393	273
75°	1628	254	210
80°	1278	187	175
85°	657	154	122

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2489 cd/sqm



TEST NUMBER: P1056569

CATALOG NUMBER: S125R3DR-H375D940-X4F0-XX-UDD-F-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	5.2
10°-20°	105.9	14.0
20°-30°	146.4	19.4
30°-40°	155.1	20.5
40°-50°	135.4	17.9
50°-60°	96.3	12.7
60°-70°	53.5	7.1
70°-80°	20.6	2.7
80°-90°	3.6	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°	291.2	38.5
0°-40°	446.4	59.1
0°-60°	678.1	89.7
0°-90°	755.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	755.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	413	416	412	411	413	39
15°	393	390	374	366	364	111
25°	355	343	315	295	288	164
35°	306	285	242	213	202	191
45°	249	219	166	132	122	192
55°	187	150	93	64	56	168
65°	124	81	34	25	23	122
75°	60	23	9	8	8	63
85°	8	2	2	2	2	12
90°	0	0	0	0	0	



TEST NUMBER: P1056569

CATALOG NUMBER: S125R3DR-H375D940-X4F0-XX-UDD-F-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	418.1	418.1	418.1	418.1	418.1
2.5°	415.1	419.3	415.8	416.2	416.6
5°	413.1	416.2	412.0	410.8	412.7
7.5°	410.0	412.3	405.0	402.3	403.4
10°	405.4	406.1	396.1	392.2	391.8
12.5°	399.6	398.4	386.0	379.8	379.4
15°	393.0	389.5	374.4	366.3	364.3
17.5°	384.9	379.4	360.8	350.4	347.3
20°	375.6	368.2	346.9	333.4	328.3
22.5°	366.3	356.2	331.4	314.4	309.0
25°	355.4	343.4	314.8	295.4	288.1
27.5°	343.8	329.5	297.7	275.3	266.4
30°	331.8	315.2	279.9	254.8	245.1
32.5°	319.0	300.1	261.3	233.9	223.8
35°	305.5	284.6	242.4	212.9	201.7
37.5°	291.9	268.7	223.8	192.4	180.8
40°	277.6	252.4	203.7	171.5	159.5
42.5°	263.7	235.8	184.7	151.8	140.9
45°	249.0	219.1	165.7	132.4	122.0
47.5°	233.9	201.7	146.7	114.2	103.8
50°	218.4	184.7	128.2	96.4	87.1
52.5°	202.9	167.6	110.7	79.4	71.2
55°	187.4	150.2	92.9	64.3	56.5
57.5°	171.9	133.2	76.3	50.3	43.4
60°	156.0	115.8	60.4	37.2	35.2
62.5°	140.2	98.7	46.8	30.6	29.0
65°	123.9	81.3	33.7	24.8	23.2
67.5°	107.6	65.4	24.4	19.0	17.8
70°	90.6	49.9	19.0	14.3	13.2
72.5°	74.3	36.0	13.6	10.5	10.1
75°	59.6	23.2	9.3	7.7	7.7
77.5°	44.9	13.9	6.6	5.8	5.8
80°	31.4	8.1	4.6	4.3	4.3
82.5°	19.0	4.3	3.1	2.7	2.7
85°	8.1	2.3	1.9	1.5	1.5
87.5°	1.5	0.8	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056569

CATALOG NUMBER: S125R3DR-H375D940-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	14.93	16.37	15.29	16.69	17.00	7.56	9.01	7.93	9.32	9.64
	3H	16.49	17.77	16.86	18.10	18.46	8.13	9.41	8.51	9.74	10.11
	4H	17.01	18.21	17.41	18.56	18.94	8.25	9.45	8.65	9.80	10.18
	6H	17.34	18.45	17.76	18.82	19.21	8.32	9.42	8.73	9.79	10.18
	8H	17.43	18.48	17.85	18.87	19.27	8.32	9.37	8.75	9.76	10.17
	12H	17.45	18.46	17.88	18.84	19.27	8.31	9.32	8.74	9.70	10.13
4H	2H	14.82	16.03	15.23	16.38	16.76	8.13	9.33	8.53	9.68	10.06
	3H	16.49	17.48	16.90	17.88	18.28	8.80	9.79	9.21	10.19	10.59
	4H	17.04	17.92	17.47	18.34	18.78	8.96	9.84	9.39	10.26	10.70
	6H	17.43	18.20	17.89	18.64	19.10	9.07	9.83	9.53	10.28	10.74
	8H	17.54	18.25	18.00	18.69	19.16	9.08	9.80	9.55	10.24	10.71
	12H	17.58	18.22	18.07	18.70	19.17	9.08	9.72	9.57	10.20	10.67
8H	4H	16.94	17.65	17.41	18.10	18.57	9.23	9.94	9.69	10.39	10.86
	6H	17.33	17.91	17.83	18.41	18.89	9.36	9.95	9.86	10.44	10.92
	8H	17.44	17.96	17.95	18.47	18.96	9.39	9.92	9.91	10.43	10.92
	12H	17.50	17.96	18.01	18.46	19.02	9.41	9.87	9.92	10.37	10.94
12H	4H	16.91	17.54	17.39	18.02	18.49	9.24	9.88	9.73	10.36	10.83
	6H	17.27	17.80	17.79	18.31	18.80	9.37	9.90	9.89	10.41	10.90
	8H	17.40	17.87	17.92	18.36	18.93	9.43	9.90	9.95	10.39	10.96