

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: P1056528

Luminaire Tested: S125R3DR-H1270D840-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056528
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H1270D840-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

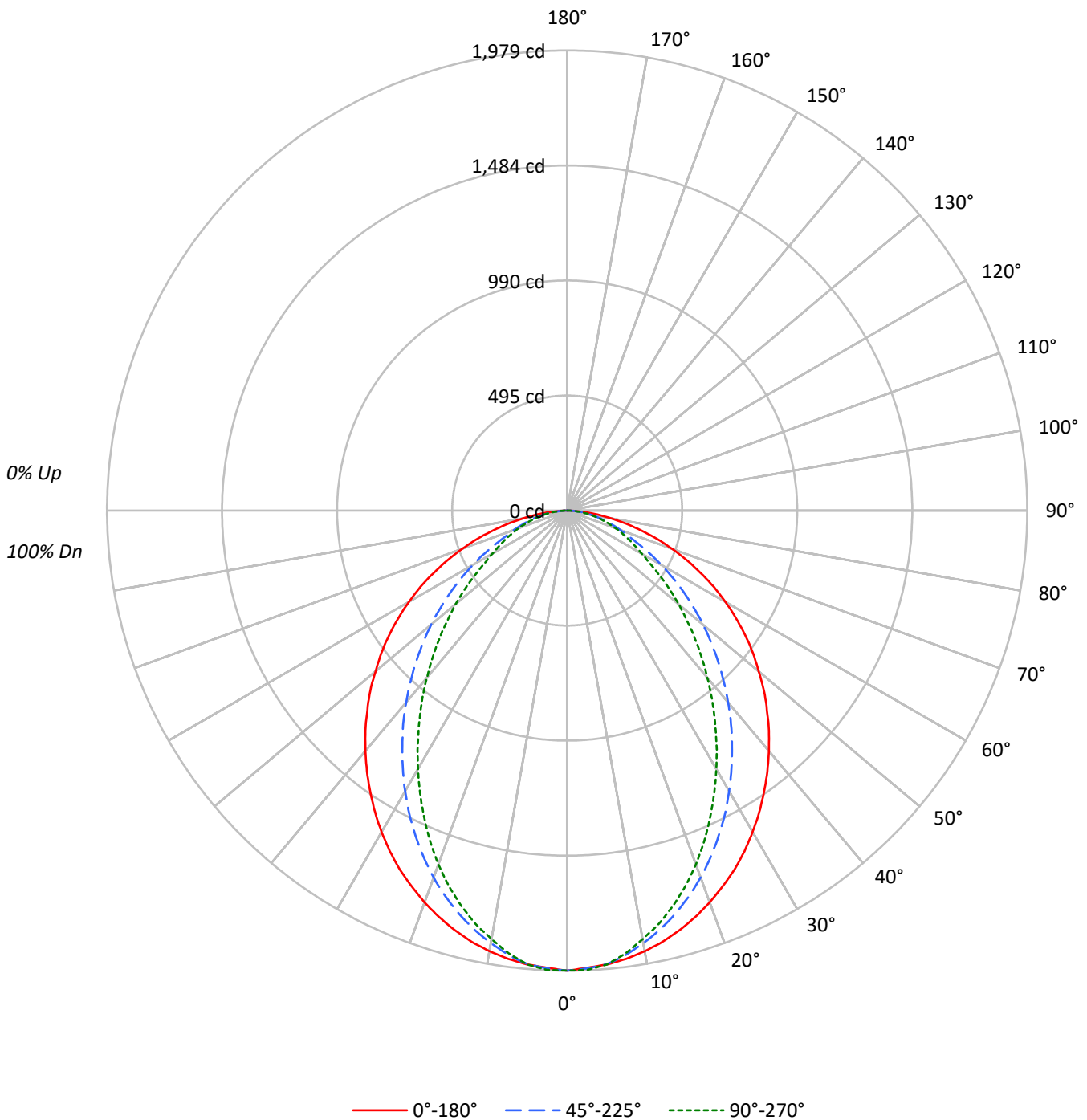
Lumens per Lamp: N/A
Luminaire Lumens: 4193.6 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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: P1056528

CATALOG NUMBER: S125R3DR-H1270D840-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P1056528

CATALOG NUMBER: S125R3DR-H1270D840-X4F0-XX-UDD-F-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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13987	13987	13987
5°	13905	13895	13905
10°	13812	13558	13431
15°	13672	13144	12874
20°	13489	12635	12181
25°	13284	12032	11354
30°	13025	11377	10475
35°	12740	10668	9561
40°	12454	9939	8661
45°	12152	9177	7762
50°	11828	8394	6870
55°	11530	7536	5974
60°	11123	6624	5250
65°	10572	5619	4879
70°	9927	5025	4568
75°	8973	4627	4305
80°	7796	4197	4018
85°	6091	3707	3707

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12152 cd/sqm



TEST NUMBER: P1056528

CATALOG NUMBER: S125R3DR-H1270D840-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.1	4.4
10°-20°	508.3	12.1
20°-30°	718.0	17.1
30°-40°	790.5	18.8
40°-50°	737.3	17.6
50°-60°	588.6	14.0
60°-70°	396.1	9.4
70°-80°	211.0	5.0
80°-90°	58.6	1.4
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°	1411.5	33.7
0°-40°	2201.9	52.5
0°-60°	3527.9	84.1
0°-90°	4193.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4193.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1979	1979	1979	1979	1979	
5°	1960	1976	1958	1952	1960	186
15°	1868	1858	1796	1765	1759	527
25°	1703	1652	1542	1475	1456	784
35°	1476	1389	1236	1139	1108	924
45°	1216	1100	918	806	776	938
55°	936	794	611	514	485	835
65°	632	494	336	298	292	627
75°	328	218	169	159	158	350
85°	75	52	46	47	46	90
90°	0	0	0	0	0	



TEST NUMBER: P1056528

CATALOG NUMBER: S125R3DR-H1270D840-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1978.6	1978.6	1978.6	1978.6	1978.6
2.5°	1968.3	1984.5	1971.2	1974.2	1977.1
5°	1959.5	1975.7	1958.0	1952.1	1959.5
7.5°	1944.7	1958.0	1928.5	1915.3	1921.2
10°	1924.1	1932.9	1888.7	1871.1	1871.1
12.5°	1899.1	1899.1	1846.0	1821.0	1821.0
15°	1868.1	1857.8	1795.9	1765.0	1759.1
17.5°	1832.8	1813.6	1739.9	1700.2	1692.8
20°	1793.0	1762.0	1679.5	1628.0	1619.1
22.5°	1748.8	1709.0	1613.2	1549.9	1539.6
25°	1703.1	1651.5	1542.5	1474.7	1455.6
27.5°	1651.5	1589.7	1470.3	1393.7	1370.1
30°	1595.6	1524.8	1393.7	1308.3	1283.2
32.5°	1538.1	1458.5	1315.6	1224.3	1196.3
35°	1476.2	1389.3	1236.1	1138.8	1107.9
37.5°	1414.3	1320.1	1158.0	1056.3	1023.9
40°	1349.5	1246.4	1077.0	972.4	938.5
42.5°	1284.7	1174.2	997.4	891.3	856.0
45°	1215.5	1100.5	917.9	805.9	776.4
47.5°	1149.2	1025.4	839.8	730.7	698.3
50°	1075.5	947.3	763.2	654.1	624.7
52.5°	1007.7	870.7	686.5	584.9	554.0
55°	935.5	794.1	611.4	514.2	484.7
57.5°	860.4	717.5	539.2	447.9	419.9
60°	786.7	640.9	468.5	384.5	371.3
62.5°	711.6	568.7	402.2	337.4	328.5
65°	632.0	493.5	335.9	297.6	291.7
67.5°	556.9	421.4	282.9	260.8	254.9
70°	480.3	349.2	243.1	223.9	221.0
72.5°	405.2	279.9	204.8	191.5	188.6
75°	328.5	218.0	169.4	159.1	157.6
77.5°	257.8	163.5	134.1	129.6	126.7
80°	191.5	122.3	103.1	100.2	98.7
82.5°	131.1	84.0	73.7	73.7	70.7
85°	75.1	51.6	45.7	47.1	45.7
87.5°	28.0	22.1	20.6	22.1	22.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056528
 CATALOG NUMBER: S125R3DR-H1270D840-X4F0-XX-UDD-F-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	20.45	21.99	20.82	22.31	22.62	16.84	18.38	17.20	18.69	19.00
	3H	22.24	23.62	22.62	23.95	24.31	18.31	19.70	18.69	20.02	20.39
	4H	22.89	24.19	23.29	24.54	24.92	18.90	20.20	19.30	20.55	20.93
	6H	23.37	24.57	23.78	24.94	25.33	19.37	20.57	19.78	20.93	21.32
	8H	23.52	24.67	23.95	25.06	25.46	19.53	20.67	19.95	21.06	21.46
	12H	23.62	24.71	24.05	25.10	25.53	19.64	20.74	20.07	21.12	21.55
4H	2H	20.59	21.89	20.99	22.24	22.61	17.51	18.81	17.91	19.16	19.54
	3H	22.56	23.64	22.97	24.04	24.44	19.19	20.27	19.60	20.67	21.07
	4H	23.30	24.28	23.74	24.69	25.13	19.89	20.87	20.33	21.28	21.72
	6H	23.90	24.75	24.36	25.19	25.65	20.48	21.33	20.94	21.77	22.23
	8H	24.10	24.90	24.57	25.34	25.81	20.69	21.48	21.15	21.92	22.39
	12H	24.25	24.96	24.73	25.44	25.91	20.85	21.56	21.33	22.04	22.51
8H	4H	23.37	24.16	23.83	24.60	25.07	20.26	21.05	20.72	21.49	21.96
	6H	24.03	24.68	24.52	25.17	25.65	20.96	21.62	21.46	22.11	22.58
	8H	24.28	24.87	24.79	25.38	25.87	21.24	21.83	21.76	22.34	22.83
	12H	24.49	25.01	25.00	25.50	26.07	21.49	22.01	21.99	22.50	23.06
12H	4H	23.36	24.07	23.84	24.55	25.02	20.31	21.01	20.79	21.49	21.96
	6H	24.02	24.61	24.53	25.12	25.61	21.03	21.62	21.54	22.13	22.62
	8H	24.32	24.84	24.82	25.33	25.89	21.37	21.90	21.88	22.39	22.95