

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: P1056373

Luminaire Tested: S125R3DR-S1090D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056373
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S1090D930-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

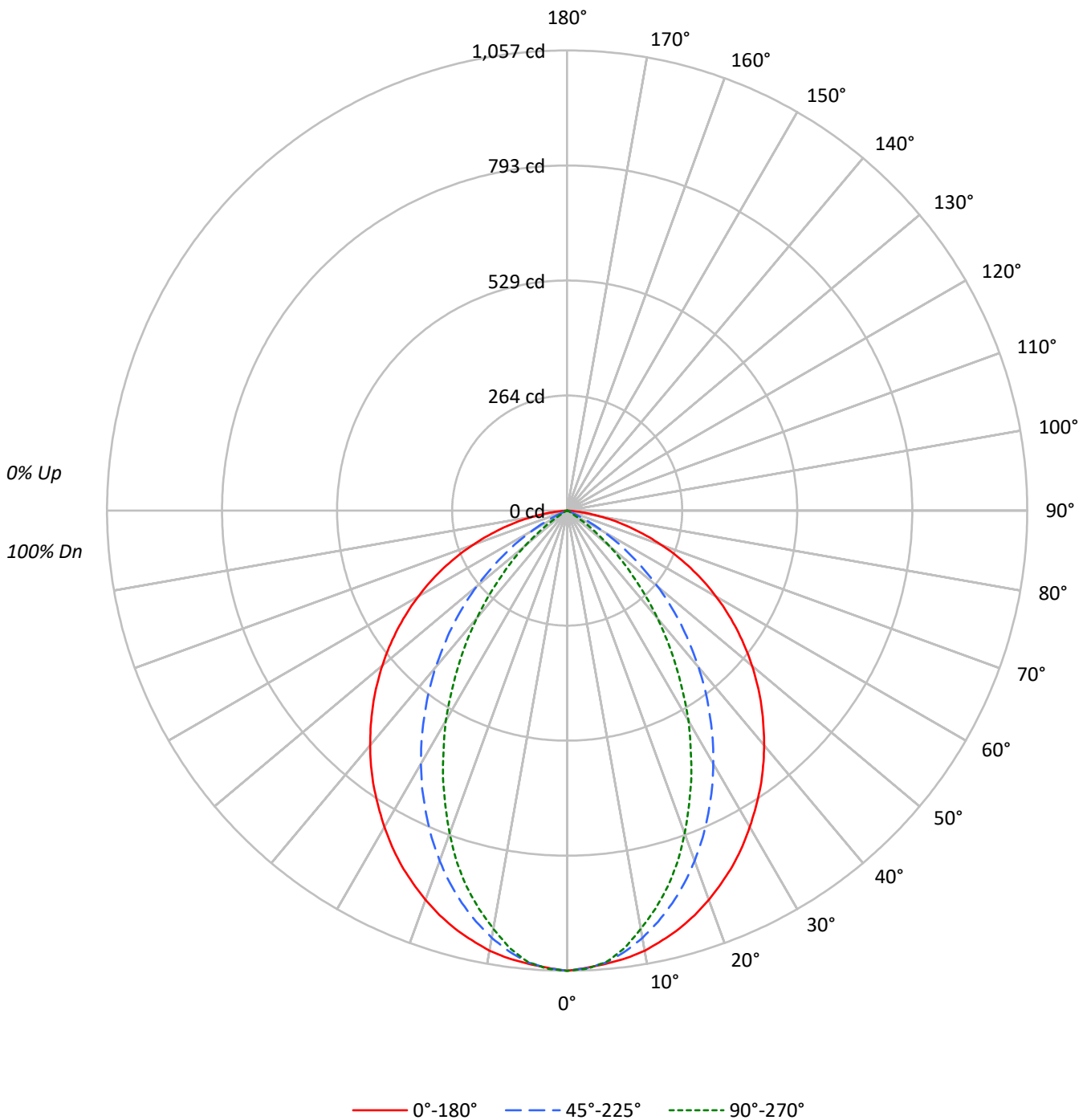
Lumens per Lamp: N/A
Luminaire Lumens: 1713.4 lumens
Efficiency: N/A
Efficacy: 49.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1056373

CATALOG NUMBER: S125R3DR-S1090D930-X4F0-XX-UDD-F-B

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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7473	7473	7473
5°	7413	7390	7383
10°	7371	7153	7002
15°	7277	6832	6541
20°	7157	6440	5935
25°	7020	5982	5263
30°	6850	5482	4550
35°	6682	4928	3761
40°	6498	4332	2978
45°	6305	3697	2157
50°	6095	2985	1395
55°	5863	2183	620
60°	5585	1347	178
65°	5241	490	105
70°	4742	174	43
75°	4122	57	27
80°	3155	41	0
85°	1444	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6305 cd/sqm

TEST NUMBER: P1056373

CATALOG NUMBER: S125R3DR-S1090D930-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.2	5.7
10°-20°	263.6	15.4
20°-30°	356.7	20.8
30°-40°	366.4	21.4
40°-50°	303.6	17.7
50°-60°	194.9	11.4
60°-70°	94.1	5.5
70°-80°	31.8	1.9
80°-90°	4.1	0.2
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°	718.5	41.9
0°-40°	1084.9	63.3
0°-60°	1583.4	92.4
0°-90°	1713.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1713.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1057	1057	1057	1057	1057	
5°	1045	1053	1041	1035	1040	99
15°	994	982	934	901	894	280
25°	900	856	767	698	675	414
35°	774	700	571	472	436	484
45°	631	527	370	256	216	486
55°	476	349	177	78	50	425
65°	313	173	29	8	6	310
75°	151	32	2	1	1	160
85°	18	0	0	0	0	28
90°	0	0	0	0	0	



TEST NUMBER: P1056373

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1057.1	1057.1	1057.1	1057.1	1057.1
2.5°	1050.9	1059.2	1051.9	1050.9	1053.0
5°	1044.6	1053.0	1041.4	1035.1	1040.4
7.5°	1037.2	1041.4	1021.5	1011.0	1013.1
10°	1026.8	1025.7	996.4	978.6	975.4
12.5°	1011.0	1005.8	967.0	941.9	936.7
15°	994.3	981.7	933.5	901.0	893.7
17.5°	974.4	954.5	896.8	854.9	844.5
20°	951.3	924.1	856.0	804.6	788.9
22.5°	926.2	891.6	813.0	752.3	731.3
25°	900.0	856.0	766.9	697.8	674.7
27.5°	870.6	819.3	720.8	642.2	614.0
30°	839.2	780.5	671.6	585.7	557.4
32.5°	806.7	741.8	622.3	529.1	494.5
35°	774.3	699.9	571.0	471.5	435.8
37.5°	739.7	658.0	520.7	417.0	378.2
40°	704.1	615.0	469.4	360.4	322.7
42.5°	667.4	571.0	418.0	307.0	268.2
45°	630.7	527.0	369.8	255.6	215.8
47.5°	593.0	481.9	319.6	205.4	170.8
50°	554.2	437.9	271.4	160.3	126.8
52.5°	515.5	392.9	222.1	116.3	85.9
55°	475.7	348.9	177.1	77.5	50.3
57.5°	435.8	303.8	135.2	43.0	18.9
60°	395.0	260.9	95.3	14.7	12.6
62.5°	355.2	214.8	59.7	11.5	9.4
65°	313.3	172.9	29.3	8.4	6.3
67.5°	272.4	133.1	12.6	5.2	3.1
70°	229.4	96.4	8.4	3.1	2.1
72.5°	189.6	61.8	5.2	2.1	1.0
75°	150.9	32.5	2.1	1.0	1.0
77.5°	113.2	13.6	1.0	1.0	1.0
80°	77.5	6.3	1.0	1.0	0.0
82.5°	46.1	2.1	1.0	1.0	0.0
85°	17.8	0.0	0.0	0.0	0.0
87.5°	1.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056373
 CATALOG NUMBER: S125R3DR-S1090D930-X4F0-XX-UDD-F-B

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	18.06	19.44	18.42	19.75	20.07	2.93	4.31	3.29	4.63	4.94
	3H	19.61	20.83	19.99	21.16	21.53	2.85	4.08	3.23	4.41	4.77
	4H	20.13	21.27	20.53	21.62	22.01	2.78	3.93	3.19	4.28	4.66
	6H	20.47	21.52	20.88	21.89	22.28	2.71	3.76	3.13	4.13	4.53
	8H	20.55	21.55	20.98	21.94	22.34	2.67	3.67	3.10	4.06	4.46
	12H	20.57	21.52	21.00	21.90	22.33	2.63	3.58	3.06	3.97	4.40
4H	2H	17.86	19.00	18.26	19.35	19.74	3.79	4.93	4.19	5.28	5.67
	3H	19.47	20.41	19.89	20.81	21.21	3.74	4.67	4.15	5.07	5.48
	4H	20.00	20.83	20.43	21.25	21.69	3.66	4.49	4.09	4.91	5.35
	6H	20.37	21.09	20.83	21.54	22.00	3.59	4.31	4.05	4.76	5.22
	8H	20.47	21.14	20.94	21.59	22.06	3.54	4.21	4.01	4.66	5.13
	12H	20.50	21.10	20.99	21.58	22.05	3.50	4.09	3.98	4.57	5.05
8H	4H	19.87	20.54	20.34	20.99	21.46	4.68	5.35	5.15	5.80	6.27
	6H	20.22	20.77	20.73	21.27	21.75	4.60	5.14	5.10	5.64	6.12
	8H	20.32	20.81	20.84	21.33	21.82	4.54	5.03	5.06	5.55	6.04
	12H	20.36	20.80	20.88	21.29	21.86	4.50	4.94	5.02	5.43	6.00
12H	4H	19.83	20.42	20.31	20.90	21.37	4.76	5.35	5.24	5.83	6.31
	6H	20.16	20.66	20.68	21.17	21.66	4.66	5.15	5.18	5.67	6.16
	8H	20.28	20.71	20.79	21.21	21.78	4.62	5.06	5.14	5.55	6.12