

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: P1056380

Luminaire Tested: S125R3DR-S1090D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056380
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-S1090D940-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

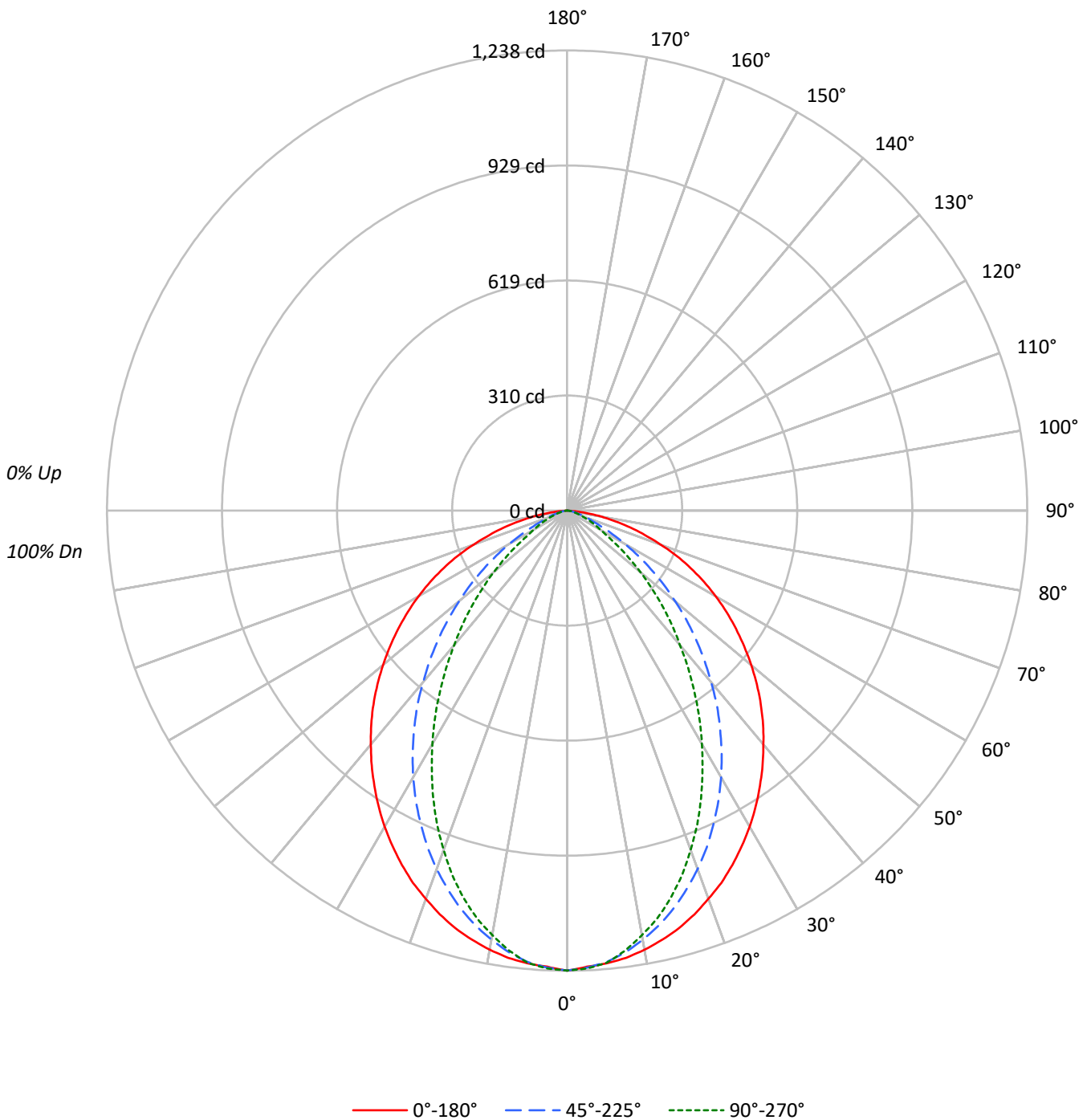
Lumens per Lamp: N/A
Luminaire Lumens: 2236.8 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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	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					100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77					77			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67					67			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59					59			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52					52			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47					47			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35					35			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8749	8749	8749
5°	8677	8652	8668
10°	8613	8415	8325
15°	8512	8110	7892
20°	8362	7724	7310
25°	8205	7267	6650
30°	8016	6763	5921
35°	7802	6190	5152
40°	7582	5562	4357
45°	7366	4903	3609
50°	7108	4172	2835
55°	6835	3389	2062
60°	6529	2528	1475
65°	6134	1668	1151
70°	5541	1160	806
75°	4821	751	625
80°	3778	562	513
85°	1955	462	373

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7366 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	5.2
10°-20°	313.4	14.0
20°-30°	433.3	19.4
30°-40°	459.1	20.5
40°-50°	400.7	17.9
50°-60°	285.0	12.7
60°-70°	158.5	7.1
70°-80°	60.9	2.7
80°-90°	10.6	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°	862.0	38.5
0°-40°	1321.1	59.1
0°-60°	2006.8	89.7
0°-90°	2236.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2236.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1238	1238	1238	1238	1238	
5°	1223	1232	1219	1216	1222	116
15°	1163	1153	1108	1084	1078	328
25°	1052	1016	932	874	853	484
35°	904	842	717	630	597	566
45°	737	649	490	392	361	568
55°	555	445	275	190	167	496
65°	367	241	100	73	69	362
75°	176	69	28	23	23	187
85°	24	7	6	5	5	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1237.6	1237.6	1237.6	1237.6	1237.6
2.5°	1228.4	1241.0	1230.7	1231.8	1233.0
5°	1222.7	1231.8	1219.2	1215.8	1221.5
7.5°	1213.5	1220.4	1198.6	1190.6	1194.0
10°	1199.8	1202.1	1172.3	1160.8	1159.7
12.5°	1182.6	1179.1	1142.5	1124.1	1123.0
15°	1163.1	1152.8	1108.1	1084.0	1078.3
17.5°	1139.0	1123.0	1068.0	1037.0	1027.9
20°	1111.5	1089.8	1026.7	986.6	971.7
22.5°	1084.0	1054.2	980.9	930.5	914.4
25°	1051.9	1016.4	931.6	874.3	852.6
27.5°	1017.6	975.2	881.2	814.7	788.4
30°	982.0	932.8	828.5	754.0	725.4
32.5°	944.2	888.1	773.5	692.1	662.3
35°	904.1	842.2	717.3	630.2	597.0
37.5°	864.0	795.3	662.3	569.5	535.1
40°	821.6	747.1	602.7	507.6	472.1
42.5°	780.4	697.9	546.6	449.2	417.1
45°	736.8	648.6	490.4	391.9	361.0
47.5°	692.1	597.0	434.3	338.0	307.1
50°	646.3	546.6	379.3	285.3	257.8
52.5°	600.5	496.2	327.7	234.9	210.8
55°	554.6	444.6	275.0	190.2	167.3
57.5°	508.8	394.2	225.7	149.0	128.3
60°	461.8	342.6	178.8	110.0	104.3
62.5°	414.8	292.2	138.7	90.5	85.9
65°	366.7	240.6	99.7	73.3	68.8
67.5°	318.6	193.7	72.2	56.1	52.7
70°	268.1	147.8	56.1	42.4	39.0
72.5°	220.0	106.6	40.1	30.9	29.8
75°	176.5	68.8	27.5	22.9	22.9
77.5°	132.9	41.3	19.5	17.2	17.2
80°	92.8	24.1	13.8	12.6	12.6
82.5°	56.1	12.6	9.2	8.0	8.0
85°	24.1	6.9	5.7	4.6	4.6
87.5°	4.6	2.3	2.3	2.3	2.3
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	18.70	20.14	19.06	20.46	20.77	11.34	12.78	11.70	13.09	13.41
	3H	20.26	21.54	20.63	21.87	22.23	11.90	13.19	12.28	13.51	13.88
	4H	20.78	21.98	21.18	22.33	22.71	12.02	13.23	12.42	13.57	13.96
	6H	21.12	22.22	21.53	22.59	22.98	12.09	13.20	12.50	13.56	13.96
	8H	21.20	22.25	21.63	22.64	23.04	12.09	13.14	12.52	13.53	13.94
	12H	21.22	22.23	21.65	22.61	23.04	12.08	13.09	12.52	13.47	13.90
4H	2H	18.59	19.80	18.99	20.15	20.53	11.90	13.10	12.30	13.45	13.83
	3H	20.26	21.25	20.67	21.65	22.05	12.57	13.56	12.98	13.96	14.36
	4H	20.81	21.69	21.24	22.11	22.55	12.73	13.61	13.16	14.03	14.47
	6H	21.20	21.97	21.66	22.41	22.87	12.84	13.61	13.30	14.05	14.51
	8H	21.31	22.02	21.77	22.47	22.93	12.85	13.57	13.32	14.01	14.48
	12H	21.35	21.99	21.84	22.47	22.94	12.85	13.49	13.34	13.97	14.44
8H	4H	20.71	21.43	21.18	21.87	22.34	13.00	13.71	13.47	14.16	14.63
	6H	21.10	21.68	21.60	22.18	22.66	13.13	13.72	13.63	14.21	14.69
	8H	21.21	21.73	21.73	22.24	22.73	13.16	13.69	13.68	14.20	14.69
	12H	21.27	21.73	21.78	22.23	22.80	13.18	13.65	13.70	14.14	14.71
12H	4H	20.68	21.31	21.16	21.79	22.26	13.01	13.65	13.50	14.13	14.60
	6H	21.05	21.57	21.56	22.08	22.57	13.15	13.67	13.66	14.18	14.67
	8H	21.18	21.64	21.69	22.13	22.70	13.20	13.67	13.72	14.16	14.73