

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: P1056535

Luminaire Tested: S125R3DR-H1270D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056535
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-H1270D930-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

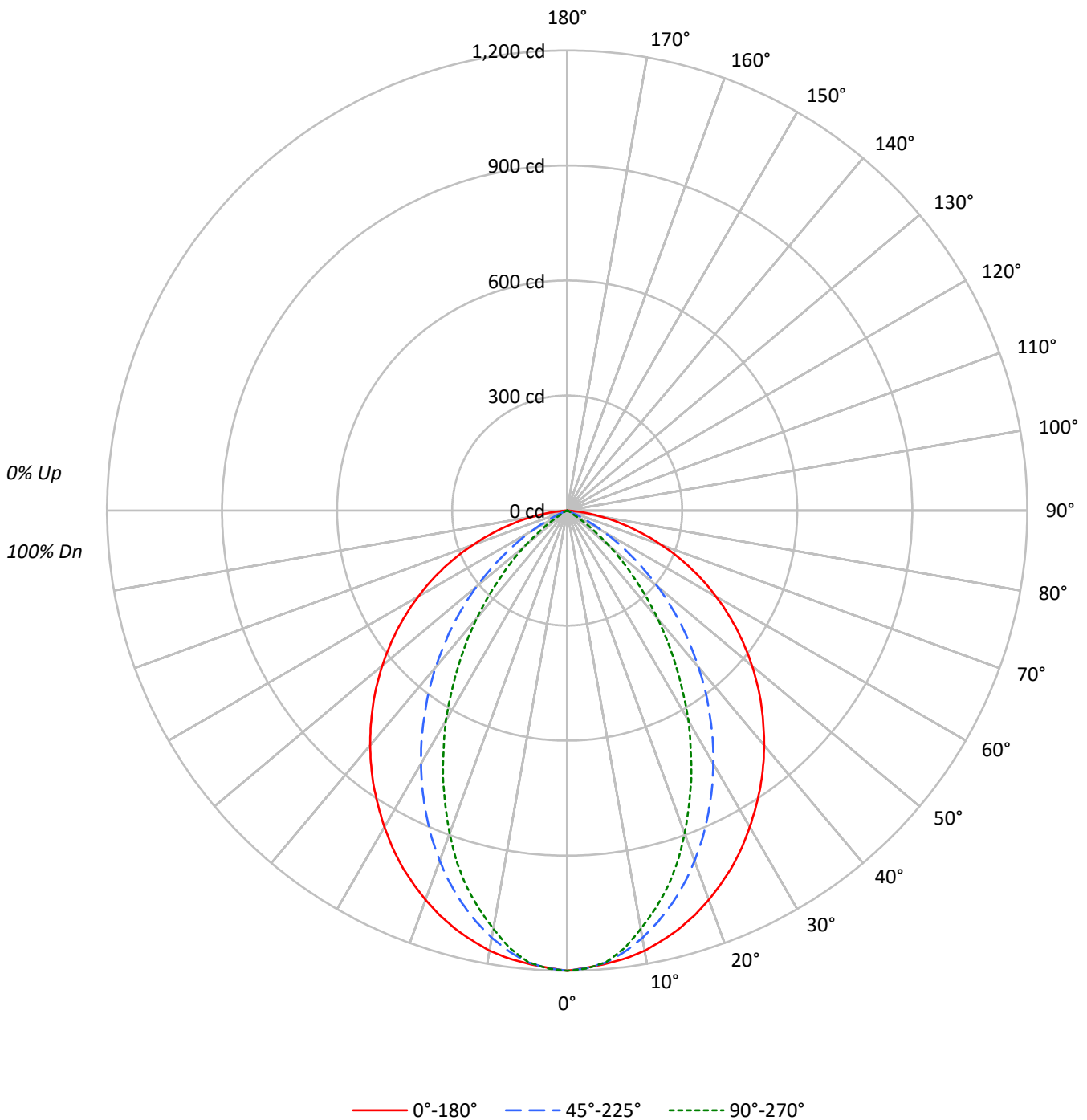
Lumens per Lamp: N/A
Luminaire Lumens: 1945.2 lumens
Efficiency: N/A
Efficacy: 53.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55					55			
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49					49			
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45					45			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8484	8484	8484
5°	8416	8390	8381
10°	8367	8119	7949
15°	8261	7756	7426
20°	8125	7311	6738
25°	7969	6792	5975
30°	7777	6223	5166
35°	7586	5594	4270
40°	7376	4918	3380
45°	7158	4198	2449
50°	6920	3388	1583
55°	6656	2477	704
60°	6340	1530	202
65°	5948	557	119
70°	5384	196	50
75°	4679	66	33
80°	3583	49	0
85°	1638	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7158 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.5	5.7
10°-20°	299.3	15.4
20°-30°	404.9	20.8
30°-40°	416.0	21.4
40°-50°	344.6	17.7
50°-60°	221.3	11.4
60°-70°	106.9	5.5
70°-80°	36.2	1.9
80°-90°	4.6	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°	815.7	41.9
0°-40°	1231.7	63.3
0°-60°	1797.6	92.4
0°-90°	1945.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1945.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1200	1200	1200	1200	1200	
5°	1186	1195	1182	1175	1181	113
15°	1129	1114	1060	1023	1015	318
25°	1022	972	871	792	766	470
35°	879	794	648	535	495	549
45°	716	598	420	290	245	552
55°	540	396	201	88	57	483
65°	356	196	33	10	7	352
75°	171	37	2	1	1	182
85°	20	0	0	0	0	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1200.1	1200.1	1200.1	1200.1	1200.1
2.5°	1193.0	1202.5	1194.2	1193.0	1195.4
5°	1185.9	1195.4	1182.3	1175.2	1181.1
7.5°	1177.5	1182.3	1159.7	1147.8	1150.2
10°	1165.6	1164.4	1131.1	1110.9	1107.4
12.5°	1147.8	1141.8	1097.8	1069.3	1063.3
15°	1128.8	1114.5	1059.8	1022.9	1014.6
17.5°	1106.2	1083.6	1018.1	970.6	958.7
20°	1080.0	1049.1	971.8	913.5	895.6
22.5°	1051.5	1012.2	923.0	854.0	830.2
25°	1021.7	971.8	870.7	792.2	766.0
27.5°	988.4	930.1	818.3	729.1	697.0
30°	952.7	886.1	762.4	664.9	632.8
32.5°	915.9	842.1	706.5	600.7	561.4
35°	879.0	794.5	648.2	535.2	494.8
37.5°	839.7	747.0	591.1	473.4	429.4
40°	799.3	698.2	532.9	409.2	366.3
42.5°	757.7	648.2	474.6	348.5	304.5
45°	716.0	598.3	419.9	290.2	245.0
47.5°	673.2	547.1	362.8	233.1	193.9
50°	629.2	497.2	308.1	182.0	143.9
52.5°	585.2	446.0	252.2	132.0	97.5
55°	540.0	396.1	201.0	88.0	57.1
57.5°	494.8	344.9	153.4	48.8	21.4
60°	448.4	296.2	108.2	16.7	14.3
62.5°	403.2	243.8	67.8	13.1	10.7
65°	355.6	196.3	33.3	9.5	7.1
67.5°	309.3	151.1	14.3	5.9	3.6
70°	260.5	109.4	9.5	3.6	2.4
72.5°	215.3	70.2	5.9	2.4	1.2
75°	171.3	36.9	2.4	1.2	1.2
77.5°	128.5	15.5	1.2	1.2	1.2
80°	88.0	7.1	1.2	1.2	0.0
82.5°	52.3	2.4	1.2	1.2	0.0
85°	20.2	0.0	0.0	0.0	0.0
87.5°	1.2	0.0	0.0	0.0	0.0
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	18.50	19.88	18.86	20.19	20.51	3.37	4.75	3.73	5.06	5.38
	3H	20.05	21.28	20.43	21.60	21.97	3.29	4.52	3.67	4.85	5.21
	4H	20.57	21.71	20.97	22.06	22.45	3.22	4.37	3.62	4.72	5.10
	6H	20.91	21.96	21.32	22.33	22.72	3.15	4.20	3.57	4.57	4.97
	8H	20.99	21.99	21.42	22.38	22.78	3.11	4.11	3.54	4.50	4.90
	12H	21.01	21.96	21.44	22.34	22.77	3.07	4.02	3.50	4.41	4.84
4H	2H	18.30	19.44	18.70	19.79	20.18	4.23	5.37	4.63	5.72	6.11
	3H	19.91	20.85	20.33	21.25	21.65	4.18	5.11	4.59	5.52	5.92
	4H	20.44	21.27	20.87	21.69	22.13	4.10	4.93	4.54	5.35	5.80
	6H	20.81	21.53	21.27	21.98	22.44	4.04	4.75	4.50	5.20	5.67
	8H	20.91	21.58	21.38	22.03	22.50	3.99	4.66	4.45	5.10	5.57
	12H	20.95	21.54	21.43	22.02	22.50	3.94	4.54	4.43	5.02	5.49
8H	4H	20.31	20.98	20.78	21.43	21.90	5.12	5.79	5.59	6.24	6.71
	6H	20.67	21.21	21.17	21.71	22.19	5.04	5.59	5.54	6.08	6.56
	8H	20.76	21.25	21.28	21.77	22.26	4.99	5.48	5.51	5.99	6.48
	12H	20.80	21.24	21.32	21.73	22.30	4.95	5.38	5.46	5.88	6.45
12H	4H	20.27	20.86	20.75	21.34	21.82	5.20	5.79	5.69	6.28	6.75
	6H	20.60	21.10	21.13	21.61	22.10	5.10	5.60	5.62	6.11	6.60
	8H	20.72	21.15	21.23	21.65	22.22	5.07	5.51	5.58	6.00	6.57