

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: P1055676

Luminaire Tested: S123R3DR-S775D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055676
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S775D935-X4F0-XX-UDD-F-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

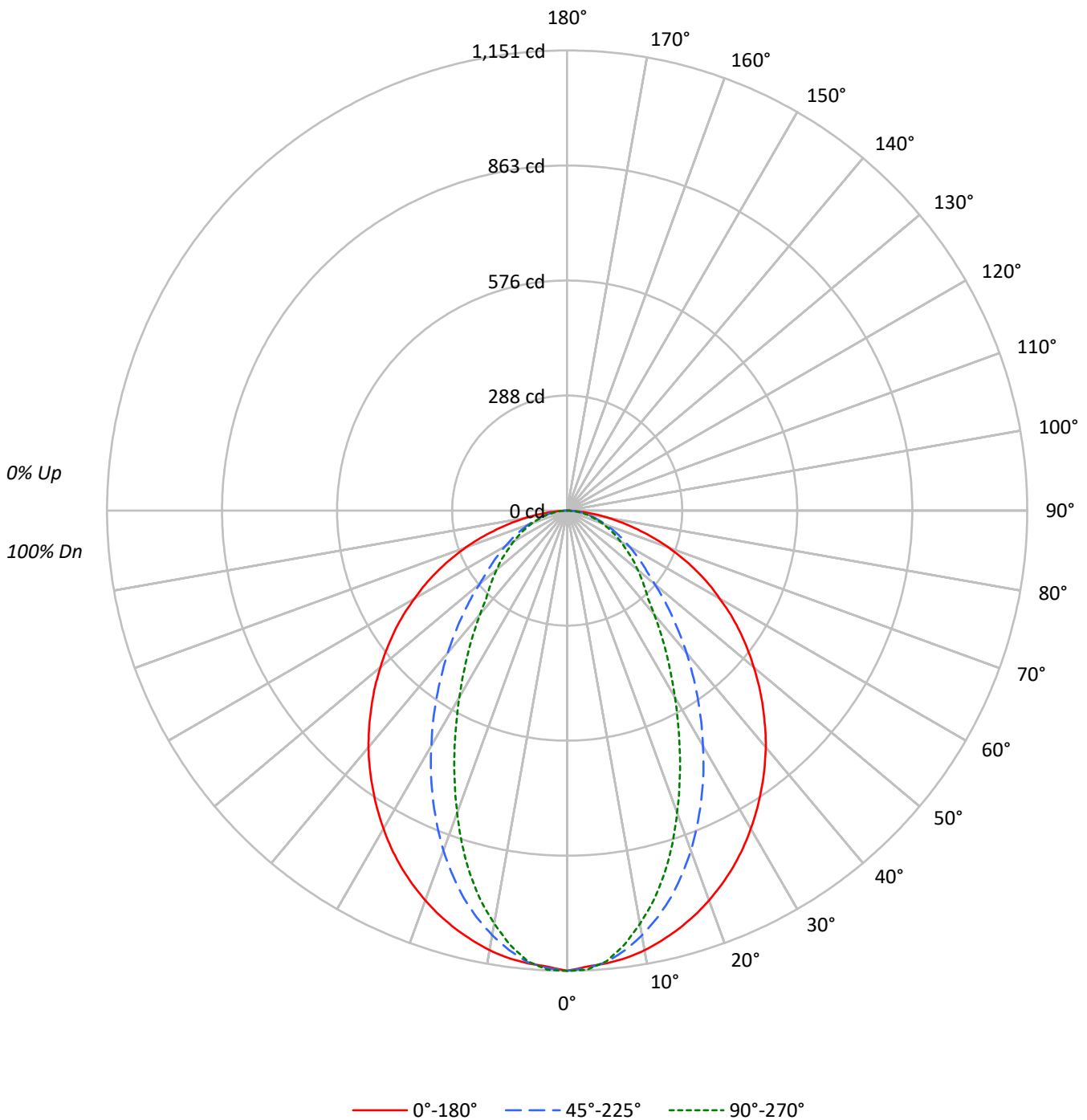
Lumens per Lamp: N/A
Luminaire Lumens: 2018.9 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76					74				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67					65				
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59					57				
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52					50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42					40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13879	13879	13879
5°	13754	13723	13693
10°	13671	13207	12850
15°	13509	12509	11735
20°	13311	11610	10318
25°	13081	10572	8877
30°	12790	9457	7504
35°	12482	8364	6336
40°	12169	7304	5326
45°	11802	6298	4697
50°	11434	5362	4312
55°	11094	4778	3981
60°	10629	4319	3716
65°	10193	3954	3489
70°	9500	3641	3278
75°	8501	3368	3088
80°	7290	3110	2867
85°	5118	2863	2739

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11802 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.7	5.3
10°-20°	282.3	14.0
20°-30°	371.9	18.4
30°-40°	377.5	18.7
40°-50°	328.1	16.3
50°-60°	257.1	12.7
60°-70°	174.6	8.7
70°-80°	94.6	4.7
80°-90°	26.1	1.3
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°	760.9	37.7
0°-40°	1138.4	56.4
0°-60°	1723.6	85.4
0°-90°	2018.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2018.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1136	1150	1134	1124	1131	108
15°	1082	1067	1002	953	940	305
25°	983	924	795	696	667	453
35°	848	747	568	460	430	531
45°	692	555	369	285	276	534
55°	528	367	227	194	189	471
65°	357	198	139	124	122	353
75°	182	91	72	67	66	195
85°	37	22	21	19	20	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1151.2	1151.2	1151.2	1151.2	1151.2
2.5°	1141.7	1156.3	1145.1	1146.0	1149.4
5°	1136.5	1150.3	1133.9	1123.6	1131.4
7.5°	1128.8	1139.1	1109.0	1092.6	1095.2
10°	1116.7	1120.2	1078.8	1053.0	1049.6
12.5°	1100.4	1094.3	1042.7	1004.8	998.8
15°	1082.3	1066.8	1002.2	953.1	940.2
17.5°	1061.6	1035.8	954.8	894.6	874.8
20°	1037.5	1001.3	904.9	828.3	804.2
22.5°	1011.7	965.2	850.7	760.3	735.3
25°	983.3	923.9	794.7	695.7	667.3
27.5°	952.3	882.5	737.9	632.0	600.1
30°	918.7	839.5	679.3	570.0	539.0
32.5°	884.2	793.8	623.4	512.3	482.2
35°	848.1	747.3	568.3	459.8	430.5
37.5°	811.1	700.0	514.9	409.8	382.3
40°	773.2	651.8	464.1	363.3	338.4
42.5°	732.7	603.6	415.0	319.4	300.5
45°	692.2	555.3	369.4	285.0	275.5
47.5°	651.8	506.3	326.3	260.9	252.3
50°	609.6	458.9	285.9	238.5	229.9
52.5°	568.3	412.4	252.3	217.0	210.9
55°	527.8	366.8	227.3	193.7	189.4
57.5°	485.6	322.0	202.3	175.6	170.5
60°	440.8	279.0	179.1	156.7	154.1
62.5°	400.4	238.5	158.4	140.3	137.8
65°	357.3	198.0	138.6	124.0	122.3
67.5°	313.4	164.5	120.5	108.5	107.6
70°	269.5	138.6	103.3	93.8	93.0
72.5°	226.4	114.5	87.0	80.9	79.2
75°	182.5	91.3	72.3	67.2	66.3
77.5°	142.9	70.6	57.7	54.2	53.4
80°	105.0	52.5	44.8	42.2	41.3
82.5°	68.9	36.2	31.9	30.1	30.1
85°	37.0	22.4	20.7	18.9	19.8
87.5°	12.9	9.5	9.5	8.6	9.5
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	19.70	21.19	20.06	21.50	21.82	14.85	16.34	15.21	16.65	16.97
	3H	21.58	22.92	21.96	23.25	23.61	16.47	17.81	16.85	18.14	18.50
	4H	22.34	23.60	22.74	23.94	24.32	17.11	18.37	17.51	18.71	19.09
	6H	22.90	24.06	23.32	24.43	24.82	17.60	18.76	18.01	19.13	19.52
	8H	23.08	24.18	23.50	24.57	24.97	17.77	18.87	18.20	19.26	19.66
	12H	23.17	24.23	23.60	24.61	25.04	17.89	18.95	18.32	19.33	19.76
4H	2H	19.74	21.00	20.14	21.35	21.73	15.57	16.83	15.97	17.18	17.56
	3H	21.76	22.80	22.17	23.20	23.61	17.39	18.44	17.80	18.84	19.24
	4H	22.58	23.52	23.01	23.93	24.37	18.14	19.08	18.57	19.50	19.94
	6H	23.26	24.08	23.72	24.52	24.98	18.75	19.57	19.21	20.01	20.47
	8H	23.49	24.25	23.95	24.70	25.17	18.96	19.73	19.43	20.17	20.64
	12H	23.64	24.32	24.13	24.80	25.27	19.13	19.81	19.61	20.29	20.76
8H	4H	22.60	23.37	23.07	23.81	24.28	18.52	19.29	18.99	19.73	20.20
	6H	23.33	23.96	23.83	24.45	24.93	19.25	19.88	19.75	20.38	20.85
	8H	23.60	24.17	24.11	24.68	25.16	19.54	20.11	20.05	20.62	21.10
	12H	23.81	24.31	24.32	24.80	25.37	19.78	20.28	20.29	20.78	21.34
12H	4H	22.59	23.27	23.07	23.75	24.22	18.58	19.26	19.06	19.74	20.21
	6H	23.31	23.88	23.83	24.39	24.88	19.33	19.90	19.85	20.41	20.90
	8H	23.62	24.12	24.13	24.61	25.18	19.68	20.18	20.19	20.67	21.24