

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: P1059156

Luminaire Tested: S123RDRP-S1165D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059156
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D940-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

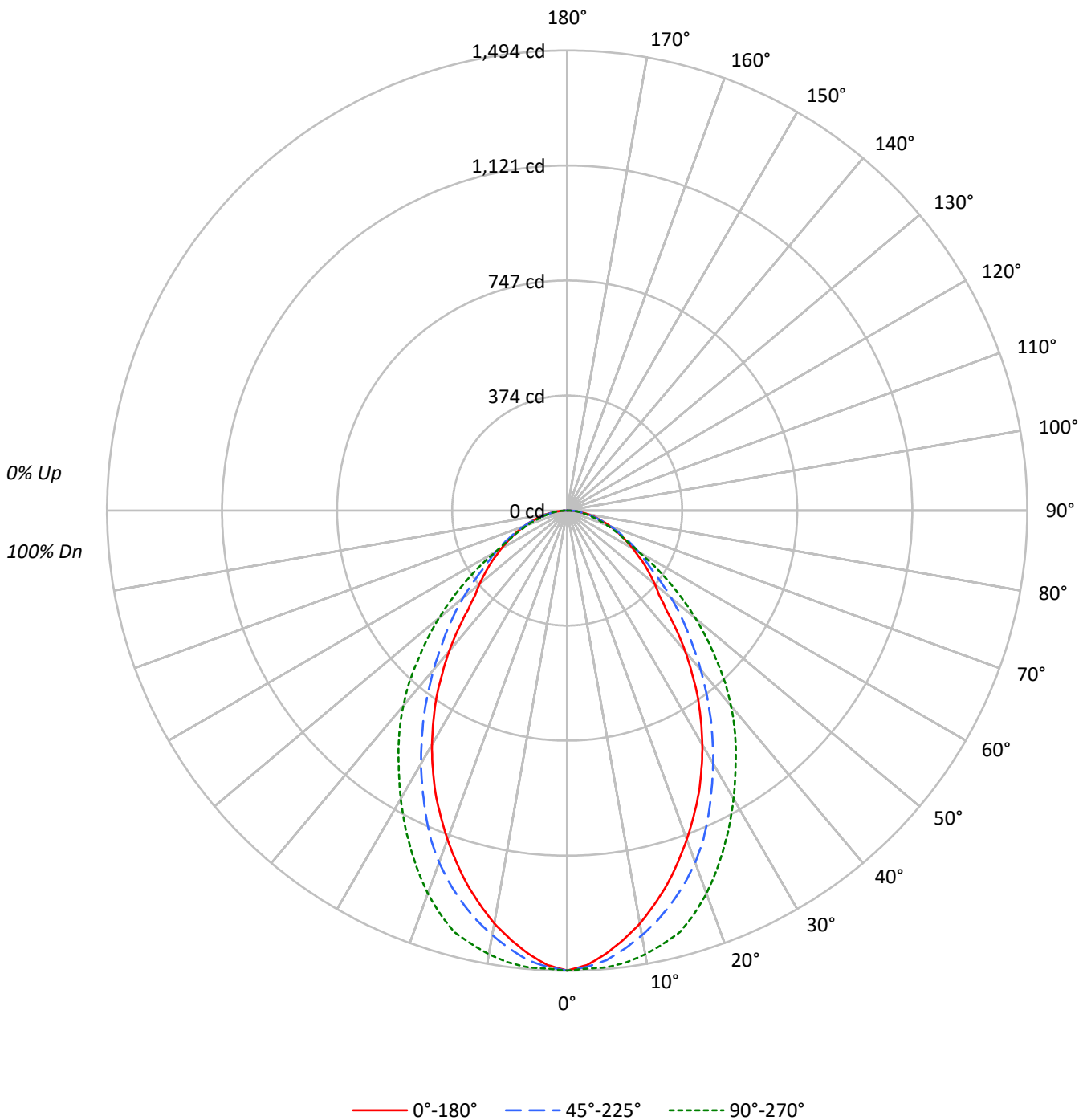
Lumens per Lamp: N/A
Luminaire Lumens: 2624.4 lumens
Efficiency: N/A
Efficacy: 62.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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: P1059156

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059156

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-WVL-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	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	108	104	101	97	100	97	94	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51					51			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46					46			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41					41			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38					38			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34					34			
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17537	17537	17537
5°	17029	17271	17544
10°	16229	16689	17439
15°	15265	16015	17219
20°	14198	15194	16527
25°	13105	14087	15620
30°	11902	12861	14656
35°	10593	11607	13690
40°	9142	10344	12688
45°	7556	9157	11377
50°	6785	8076	9932
55°	6289	6893	8236
60°	5796	6278	6308
65°	5393	5679	5285
70°	5074	5164	4635
75°	4782	4605	4083
80°	4517	4172	3827
85°	4325	4675	4325

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11377 cd/sqm



TEST NUMBER: P1059156

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.3	5.3
10°-20°	372.7	14.2
20°-30°	504.1	19.2
30°-40°	518.1	19.7
40°-50°	435.1	16.6
50°-60°	311.9	11.9
60°-70°	198.6	7.6
70°-80°	109.1	4.2
80°-90°	36.4	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°	1015.1	38.7
0°-40°	1533.2	58.4
0°-60°	2280.2	86.9
0°-90°	2624.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2624.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1494	1494	1494	1494	1494	
5°	1445	1470	1465	1476	1488	135
15°	1256	1290	1317	1374	1416	352
25°	1012	1050	1087	1146	1206	464
35°	739	779	810	882	955	460
45°	455	495	551	631	685	359
55°	307	314	337	382	402	274
65°	194	206	204	193	190	193
75°	105	116	102	94	90	112
85°	32	33	35	36	32	35
90°	0	0	0	0	0	

TEST NUMBER: P1059156

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1493.5	1493.5	1493.5	1493.5	1493.5
2.5°	1476.8	1497.3	1483.2	1484.5	1488.4
5°	1444.7	1470.4	1465.2	1475.5	1488.4
7.5°	1404.8	1433.1	1434.4	1458.8	1479.4
10°	1361.1	1390.7	1399.7	1436.9	1462.6
12.5°	1309.7	1341.8	1361.1	1407.4	1440.8
15°	1255.7	1290.4	1317.4	1374.0	1416.4
17.5°	1196.6	1233.9	1268.6	1329.0	1372.7
20°	1136.2	1176.0	1215.9	1272.4	1322.6
22.5°	1073.2	1114.3	1155.5	1210.7	1266.0
25°	1011.5	1050.1	1087.3	1146.5	1205.6
27.5°	944.7	984.5	1016.7	1082.2	1143.9
30°	877.8	917.7	948.5	1016.7	1080.9
32.5°	808.4	849.6	877.8	948.5	1015.4
35°	739.0	778.9	809.7	881.7	955.0
37.5°	665.8	709.5	740.3	821.3	893.3
40°	596.4	637.5	674.8	759.6	827.7
42.5°	524.4	566.8	609.2	696.6	759.6
45°	455.0	494.8	551.4	631.1	685.1
47.5°	404.9	430.6	496.1	563.0	614.4
50°	371.4	381.7	442.1	501.3	543.7
52.5°	338.0	345.7	386.9	440.9	473.0
55°	307.2	313.6	336.7	381.7	402.3
57.5°	273.8	280.2	299.5	325.2	336.7
60°	246.8	251.9	267.3	271.2	268.6
62.5°	219.8	227.5	235.2	226.2	222.4
65°	194.1	205.6	204.4	192.8	190.2
67.5°	170.9	182.5	176.1	164.5	160.7
70°	147.8	159.4	150.4	138.8	135.0
72.5°	126.0	138.8	124.7	114.4	111.8
75°	105.4	115.7	101.5	93.8	90.0
77.5°	86.1	93.8	81.0	74.5	72.0
80°	66.8	72.0	61.7	57.8	56.6
82.5°	48.8	51.4	45.0	47.6	46.3
85°	32.1	33.4	34.7	36.0	32.1
87.5°	15.4	21.8	21.8	20.6	16.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059156

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-WVL-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	17.14	18.60	17.50	18.91	19.23	18.21	19.67	18.57	19.98	20.30
	3H	18.83	20.14	19.21	20.47	20.84	19.29	20.60	19.67	20.93	21.29
	4H	19.49	20.72	19.89	21.07	21.44	19.69	20.92	20.09	21.27	21.65
	6H	19.99	21.12	20.40	21.49	21.88	20.00	21.14	20.42	21.50	21.90
	8H	20.16	21.24	20.59	21.63	22.03	20.14	21.22	20.57	21.61	22.01
	12H	20.29	21.32	20.72	21.70	22.13	20.26	21.29	20.69	21.67	22.10
4H	2H	17.74	18.97	18.14	19.32	19.70	18.61	19.84	19.01	20.19	20.57
	3H	19.67	20.68	20.08	21.08	21.49	19.93	20.95	20.34	21.35	21.75
	4H	20.48	21.39	20.91	21.81	22.25	20.45	21.36	20.88	21.78	22.22
	6H	21.13	21.92	21.58	22.37	22.83	20.88	21.68	21.34	22.12	22.58
	8H	21.35	22.09	21.81	22.54	23.00	21.07	21.81	21.53	22.26	22.73
	12H	21.52	22.18	22.00	22.66	23.13	21.25	21.92	21.74	22.40	22.87
8H	4H	20.71	21.46	21.18	21.90	22.37	20.69	21.44	21.16	21.88	22.35
	6H	21.50	22.12	22.00	22.61	23.09	21.24	21.86	21.74	22.35	22.83
	8H	21.82	22.37	22.33	22.88	23.37	21.52	22.07	22.03	22.58	23.07
	12H	22.08	22.57	22.59	23.07	23.63	21.81	22.30	22.32	22.79	23.36
12H	4H	20.73	21.39	21.21	21.87	22.34	20.72	21.38	21.20	21.86	22.33
	6H	21.54	22.09	22.05	22.60	23.09	21.29	21.85	21.81	22.36	22.85
	8H	21.91	22.40	22.42	22.89	23.46	21.63	22.12	22.14	22.62	23.18