

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: P735929

Luminaire Tested: S122RDRP-S675D927-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2024
Report Number: P735929
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-143-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S675D927-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

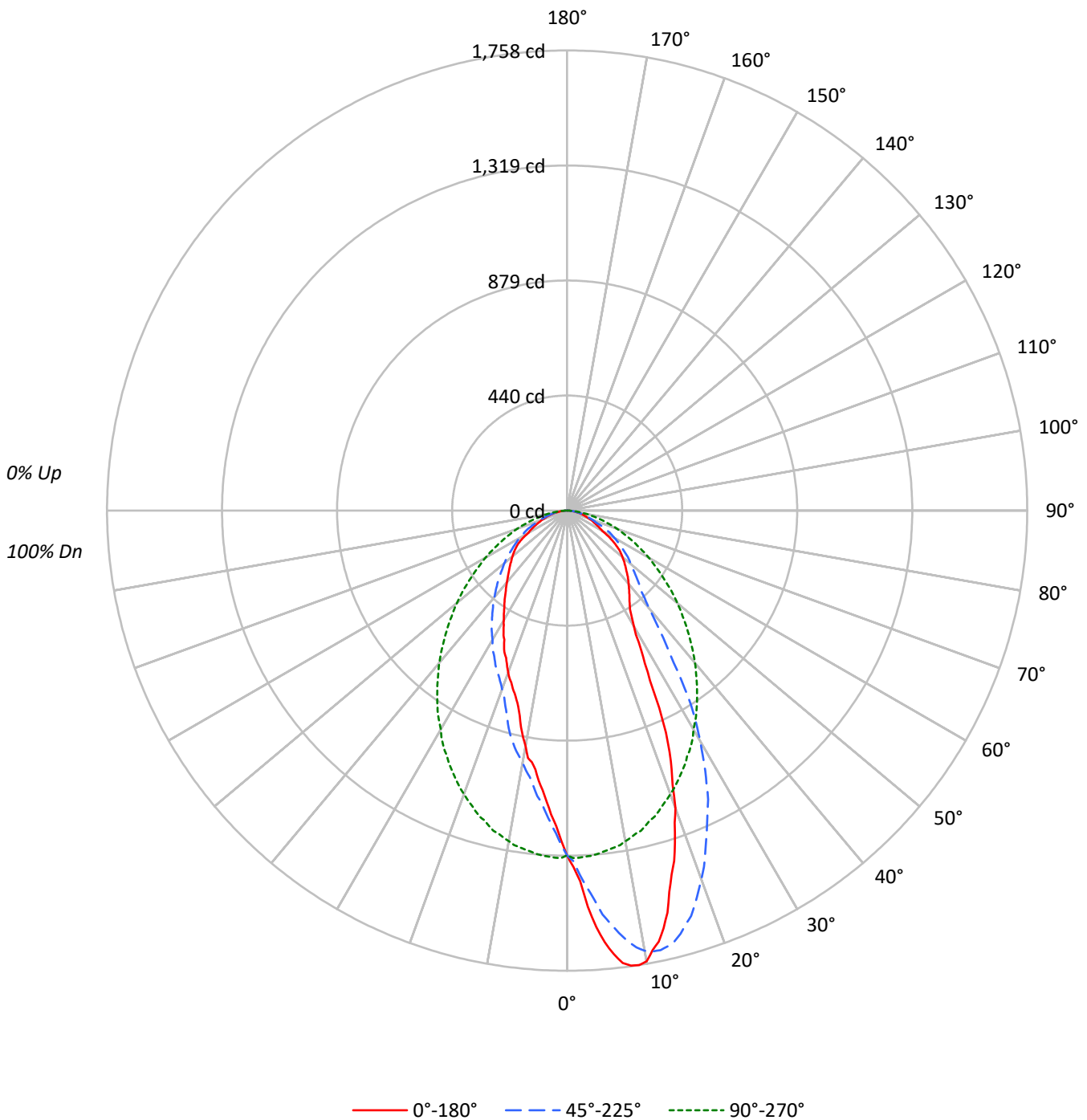
Lumens per Lamp: N/A
Luminaire Lumens: 2257.3 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.11 / 1
Luminous Opening: Rectangular (W 4' x L: 0.14' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (Ain): 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	103	99	108	104	101	98	100	97	95	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	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52					52			
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46					46			
7	71	58	50	45	69	57	50	45	56	49	44	55	49	44	53	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	42	37	47	41	37	46	41	37	35					35			
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	25322	25322	25322	25322	25322
5°	31946	29882	25419	21598	20680
10°	34123	33321	25032	19110	17859
15°	30014	33309	24371	17135	14881
20°	24744	30658	23593	14875	13465
25°	17641	26915	22648	13777	12114
30°	11288	22577	21434	12642	10760
35°	9721	16637	20318	11730	9759
40°	9163	12164	19062	10852	8965
45°	8658	10422	17723	10055	8462
50°	8244	9500	16465	9357	8149
55°	7567	8787	15053	8602	7858
60°	5970	8008	13828	8069	6639
65°	5403	7168	12539	7495	6054
70°	4985	5789	11397	6457	5564
75°	4649	5236	9944	5763	5236
80°	4295	4738	8413	5169	4738
85°	3837	4190	6462	4543	4190

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 24807 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.8	5.7
10°-20°	343.3	15.2
20°-30°	430.6	19.1
30°-40°	410.3	18.2
40°-50°	362.0	16.0
50°-60°	284.7	12.6
60°-70°	181.7	8.0
70°-80°	92.4	4.1
80°-90°	24.5	1.1
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°	901.7	39.9
0°-40°	1312.0	58.1
0°-60°	1958.8	86.8
0°-90°	2257.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2257.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1317	1317	1317	1317	1317	
5°	1656	1549	1317	1119	1072	161
15°	1508	1674	1225	861	748	418
25°	832	1269	1068	650	571	375
35°	414	709	866	500	416	263
45°	318	383	652	370	311	247
55°	226	262	449	257	234	198
65°	119	158	276	165	133	119
75°	63	70	134	78	70	67
85°	17	19	29	21	19	20
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1317.4	1317.4	1317.4	1317.4	1317.4	1317.4	1317.4	1317.4	1317.4
1°	1361.8	1368.1	1338.8	1342.0	1327.7	1302.3	1277.8	1280.2	1262.7
2°	1416.4	1433.1	1392.7	1368.1	1326.9	1282.5	1233.4	1227.1	1205.7
3°	1515.4	1507.5	1441.0	1391.1	1323.7	1257.2	1195.4	1181.1	1162.9
4°	1595.5	1571.7	1490.1	1420.4	1322.2	1227.9	1158.2	1133.6	1115.4
5°	1655.7	1625.6	1548.7	1442.6	1317.4	1211.2	1119.4	1091.6	1071.8
6°	1704.0	1681.0	1586.7	1463.2	1311.1	1186.7	1096.4	1059.1	1038.6
7°	1741.2	1722.2	1625.6	1490.9	1305.5	1162.1	1059.9	1021.1	996.6
8°	1755.5	1746.8	1661.2	1510.7	1299.2	1144.7	1027.5	992.6	970.4
9°	1757.9	1758.6	1689.7	1529.7	1293.6	1113.0	1004.5	968.8	957.0
10°	1748.3	1755.5	1707.2	1551.1	1282.5	1097.2	979.1	945.1	915.0
11°	1711.1	1742.8	1715.9	1565.4	1273.0	1071.8	957.0	912.6	882.5
12°	1683.4	1713.5	1716.7	1583.6	1261.9	1059.9	937.9	878.5	846.8
13°	1637.4	1669.1	1708.7	1588.3	1255.6	1030.6	914.2	843.7	804.9
14°	1582.8	1633.5	1696.1	1598.6	1239.8	1005.3	890.4	794.6	771.6
15°	1508.3	1580.4	1673.9	1602.6	1224.7	987.9	861.1	770.0	747.8
16°	1446.5	1528.1	1643.8	1602.6	1215.2	964.1	829.4	748.6	726.4
17°	1399.8	1466.3	1619.2	1603.4	1199.4	947.4	797.7	728.8	711.4
18°	1334.0	1408.5	1580.4	1600.2	1182.7	927.6	770.8	712.2	690.8
19°	1261.2	1349.9	1539.2	1594.7	1168.5	907.0	742.3	694.7	676.5
20°	1209.7	1291.3	1498.8	1585.9	1153.4	893.6	727.2	674.9	658.3
21°	1123.3	1223.1	1458.4	1574.1	1137.6	870.6	706.6	657.5	639.3
22.5°	1035.4	1127.3	1383.9	1554.3	1111.4	842.1	683.7	636.1	609.2
23°	1001.3	1104.3	1361.0	1548.7	1102.7	835.0	676.5	626.6	602.9
24°	928.4	1035.4	1313.4	1531.3	1083.7	811.2	663.1	607.6	591.0
25°	831.8	976.8	1269.1	1513.1	1067.9	793.8	649.6	592.6	571.2
26°	722.5	896.7	1228.7	1490.9	1045.7	770.0	631.4	578.3	548.2
27°	655.1	827.8	1174.0	1467.1	1029.8	752.6	616.3	556.9	535.5
28°	601.3	719.3	1124.9	1444.1	1010.8	731.2	606.0	541.9	516.5
29°	542.6	659.9	1067.1	1413.3	990.2	706.6	589.4	526.8	499.9
30°	508.6	596.5	1017.2	1390.3	965.7	690.0	569.6	511.7	484.8
32.5°	446.8	491.9	881.7	1324.5	918.9	642.5	537.1	470.6	447.6
35°	414.3	438.1	709.0	1247.7	865.9	602.9	499.9	436.5	415.9
37.5°	389.8	404.0	585.4	1165.3	812.0	568.0	465.8	404.8	385.0
40°	365.2	376.3	484.8	1086.1	759.7	533.9	432.5	372.3	357.3
42.5°	343.0	351.7	420.6	1007.7	705.8	499.1	400.1	347.0	333.5
45°	318.5	326.4	383.4	912.6	652.0	463.4	369.9	319.2	311.3
47.5°	297.9	303.4	347.8	827.8	598.9	429.4	339.1	297.1	291.5
50°	275.7	282.8	317.7	733.6	550.6	396.1	312.9	277.3	272.5
52.5°	254.3	257.5	292.3	639.3	499.9	363.6	285.2	257.5	254.3
55°	225.8	238.4	262.2	542.6	449.2	333.5	256.7	236.9	234.5
57.5°	193.3	209.9	235.3	455.5	401.6	300.2	233.7	217.8	207.6
60°	155.3	175.1	208.3	378.7	359.7	270.1	209.9	185.4	172.7
62.5°	136.3	142.6	183.8	316.9	316.9	241.6	186.2	159.2	153.7
65°	118.8	123.6	157.6	262.2	275.7	209.9	164.8	137.8	133.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	103.8	107.7	120.4	218.6	237.7	183.0	136.3	120.4	114.9
70°	88.7	91.9	103.0	178.2	202.8	156.1	114.9	103.0	99.0
72.5°	75.3	78.4	84.8	133.9	166.4	129.9	96.6	87.9	84.8
75°	62.6	64.2	70.5	99.8	133.9	103.8	77.6	72.1	70.5
77.5°	50.7	51.5	55.5	71.3	103.8	79.2	62.6	57.8	57.0
80°	38.8	39.6	42.8	51.5	76.0	57.0	46.7	44.4	42.8
82.5°	27.7	28.5	30.1	34.9	51.5	38.8	33.3	32.5	30.1
85°	17.4	17.4	19.0	21.4	29.3	22.2	20.6	19.8	19.0
87.5°	7.9	7.9	8.7	8.7	13.5	9.5	9.5	8.7	7.9
90°	0.0	0.0	0.0	0.0	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	17.66	19.13	18.03	19.44	19.76	20.36	21.83	20.72	22.14	22.45
	3H	18.78	20.09	19.16	20.42	20.78	21.80	23.11	22.18	23.44	23.80
	4H	19.22	20.45	19.62	20.80	21.18	22.30	23.53	22.70	23.88	24.26
	6H	19.57	20.70	19.98	21.07	21.46	22.63	23.76	23.04	24.13	24.52
	8H	19.68	20.76	20.11	21.15	21.55	22.72	23.80	23.14	24.19	24.59
	12H	19.75	20.79	20.19	21.17	21.60	22.76	23.80	23.20	24.18	24.61
4H	2H	18.83	20.06	19.23	20.41	20.79	20.81	22.04	21.21	22.39	22.77
	3H	20.06	21.08	20.47	21.48	21.88	22.47	23.49	22.88	23.89	24.29
	4H	20.54	21.46	20.97	21.87	22.31	23.11	24.02	23.54	24.44	24.88
	6H	20.94	21.74	21.40	22.18	22.64	23.56	24.36	24.02	24.80	25.26
	8H	21.08	21.82	21.54	22.26	22.73	23.69	24.43	24.15	24.88	25.35
	12H	21.17	21.84	21.66	22.32	22.79	23.77	24.43	24.25	24.91	25.38
8H	4H	20.94	21.68	21.41	22.13	22.60	23.22	23.96	23.68	24.41	24.88
	6H	21.43	22.05	21.93	22.54	23.02	23.78	24.39	24.28	24.89	25.36
	8H	21.62	22.17	22.14	22.68	23.17	23.98	24.53	24.50	25.04	25.53
	12H	21.78	22.26	22.29	22.76	23.32	24.13	24.61	24.64	25.11	25.67
12H	4H	20.99	21.65	21.47	22.13	22.60	23.21	23.87	23.69	24.35	24.82
	6H	21.50	22.05	22.02	22.56	23.05	23.78	24.33	24.29	24.84	25.33
	8H	21.74	22.23	22.25	22.72	23.29	24.02	24.51	24.54	25.00	25.57