

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: P242381

Luminaire Tested: S122RDRP-S1005D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242381
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S1005D935-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

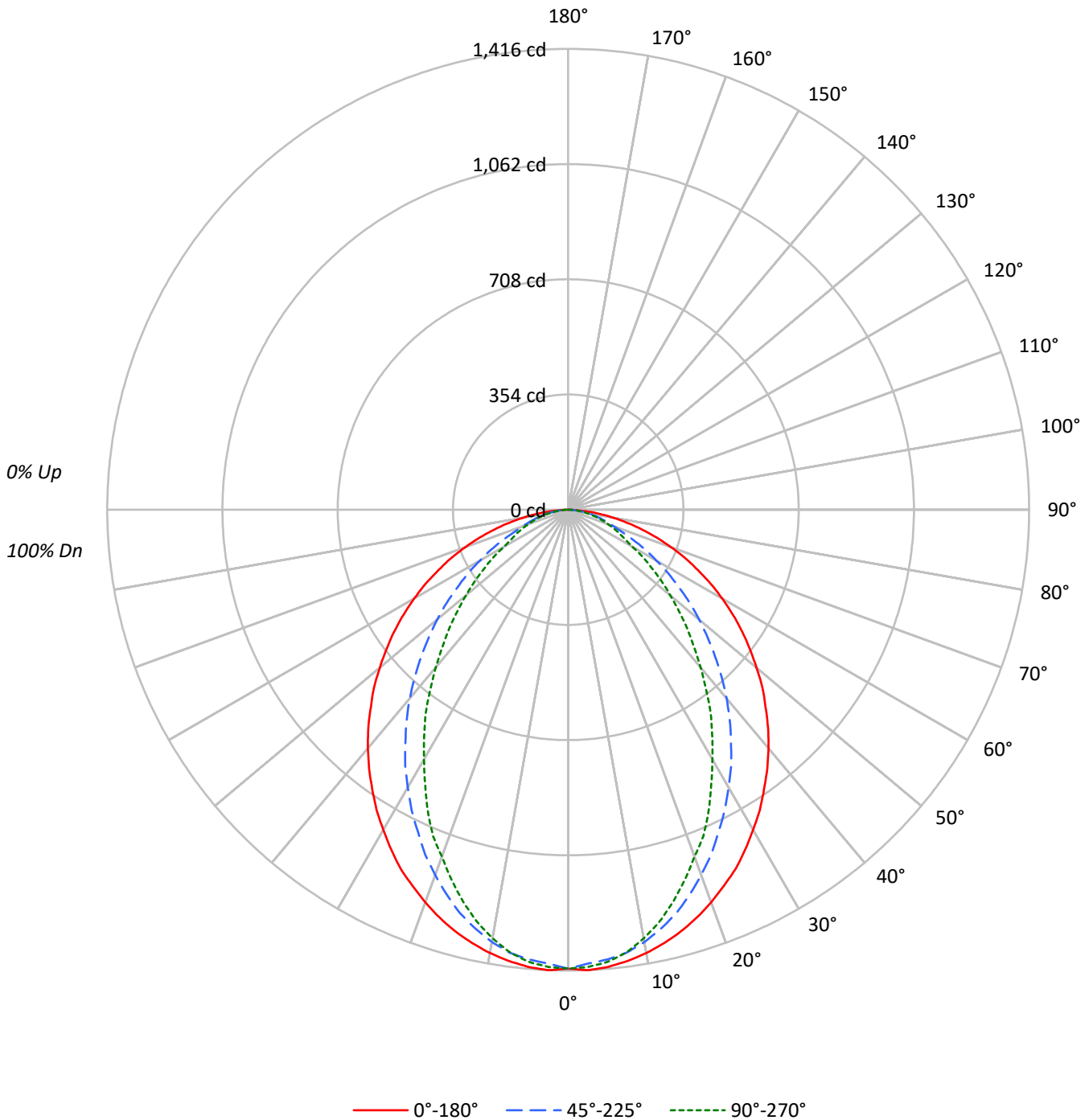
Lumens per Lamp: N/A
Luminaire Lumens: 2900.0 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88					86				
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76					74				
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66					64				
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57					55				
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51					49				
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45					43				
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41					39				
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37					35				
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34					32				
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31					29				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26859	26859	26859
5°	26962	26522	26667
10°	26755	26088	25865
15°	26446	25314	24584
20°	26021	24211	22994
25°	25586	22957	21456
30°	24979	21667	19478
35°	24390	20267	17744
40°	23796	18815	15737
45°	23099	17186	13921
50°	22385	15542	12138
55°	21655	13772	10424
60°	20808	11909	8651
65°	19840	10006	7878
70°	18690	8242	7251
75°	17280	7514	6763
80°	15258	6724	6154
85°	11998	5289	5289

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23099 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.2	4.6
10°-20°	362.8	12.5
20°-30°	509.3	17.6
30°-40°	555.2	19.1
40°-50°	510.3	17.6
50°-60°	400.8	13.8
60°-70°	260.8	9.0
70°-80°	134.3	4.6
80°-90°	34.3	1.2
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°	1004.3	34.6
0°-40°	1559.5	53.8
0°-60°	2470.5	85.2
0°-90°	2900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2900.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1410	1404	1387	1399	1395	134
15°	1341	1327	1284	1260	1247	378
25°	1217	1176	1092	1040	1021	560
35°	1049	984	872	791	763	657
45°	858	772	638	547	517	662
55°	652	552	415	338	314	583
65°	440	337	222	179	175	436
75°	235	146	102	93	92	248
85°	55	28	24	24	24	66
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1410.1	1410.1	1410.1	1410.1	1410.1
2.5°	1416.4	1410.1	1396.0	1408.8	1406.2
5°	1410.1	1403.7	1387.1	1398.6	1394.7
7.5°	1398.6	1390.9	1373.0	1378.2	1371.8
10°	1383.3	1374.3	1348.8	1345.0	1337.3
12.5°	1364.1	1352.6	1318.2	1310.5	1296.5
15°	1341.1	1327.1	1283.7	1259.5	1246.7
17.5°	1314.3	1293.9	1240.3	1212.3	1191.8
20°	1283.7	1258.2	1194.4	1162.5	1134.4
22.5°	1250.5	1221.2	1147.2	1103.8	1084.7
25°	1217.4	1176.5	1092.3	1040.0	1020.9
27.5°	1177.8	1134.4	1041.3	981.3	951.9
30°	1135.7	1087.2	985.1	920.0	885.6
32.5°	1094.9	1036.2	931.5	855.0	823.1
35°	1048.9	983.8	871.6	791.2	763.1
37.5°	1004.3	934.1	815.4	727.4	695.5
40°	957.0	880.5	756.7	666.1	632.9
42.5°	908.6	826.9	698.0	603.6	571.7
45°	857.5	772.0	638.0	547.4	516.8
47.5°	809.0	718.4	580.6	490.0	461.9
50°	755.4	664.8	524.5	436.4	409.6
52.5°	703.1	607.4	470.9	386.6	362.4
55°	652.1	552.5	414.7	338.2	313.9
57.5°	599.8	497.7	365.0	293.5	273.1
60°	546.2	444.1	312.6	247.6	227.1
62.5°	493.8	391.8	268.0	206.7	196.5
65°	440.2	336.9	222.0	178.6	174.8
67.5°	389.2	285.8	178.6	157.0	153.1
70°	335.6	236.1	148.0	135.3	130.2
72.5°	284.6	190.1	123.8	113.6	111.0
75°	234.8	145.5	102.1	93.2	91.9
77.5°	185.0	103.4	80.4	75.3	72.7
80°	139.1	74.0	61.3	56.1	56.1
82.5°	97.0	49.8	42.1	39.6	39.6
85°	54.9	28.1	24.2	24.2	24.2
87.5°	20.4	10.2	10.2	8.9	8.9
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	22.67	24.19	23.03	24.50	24.82	18.63	20.15	18.99	20.46	20.78
	3H	24.43	25.80	24.81	26.13	26.49	19.89	21.26	20.27	21.59	21.95
	4H	25.10	26.38	25.50	26.73	27.11	20.40	21.68	20.79	22.02	22.40
	6H	25.59	26.77	26.00	27.14	27.53	20.78	21.96	21.19	22.33	22.72
	8H	25.75	26.88	26.18	27.27	27.67	20.90	22.03	21.33	22.42	22.82
	12H	25.86	26.94	26.29	27.32	27.75	20.98	22.06	21.41	22.44	22.87
4H	2H	22.77	24.05	23.17	24.40	24.78	19.32	20.60	19.72	20.95	21.33
	3H	24.70	25.77	25.12	26.17	26.57	20.77	21.83	21.18	22.23	22.63
	4H	25.45	26.41	25.89	26.83	27.27	21.37	22.32	21.80	22.74	23.18
	6H	26.05	26.88	26.50	27.32	27.78	21.85	22.69	22.31	23.13	23.59
	8H	26.26	27.04	26.72	27.48	27.95	22.02	22.79	22.48	23.24	23.71
	12H	26.41	27.11	26.90	27.59	28.06	22.13	22.83	22.62	23.31	23.78
8H	4H	25.48	26.26	25.94	26.70	27.17	21.72	22.50	22.18	22.94	23.41
	6H	26.12	26.76	26.61	27.25	27.73	22.31	22.95	22.80	23.44	23.92
	8H	26.37	26.94	26.88	27.45	27.94	22.53	23.10	23.04	23.61	24.10
	12H	26.57	27.08	27.08	27.57	28.14	22.71	23.22	23.22	23.71	24.27
12H	4H	25.46	26.16	25.95	26.64	27.11	21.76	22.46	22.25	22.94	23.41
	6H	26.10	26.67	26.61	27.18	27.67	22.37	22.95	22.88	23.46	23.95
	8H	26.38	26.89	26.89	27.38	27.95	22.64	23.15	23.15	23.65	24.21