

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: P242362

Luminaire Tested: S122RDRP-S1005D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242362
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-S1005D830-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

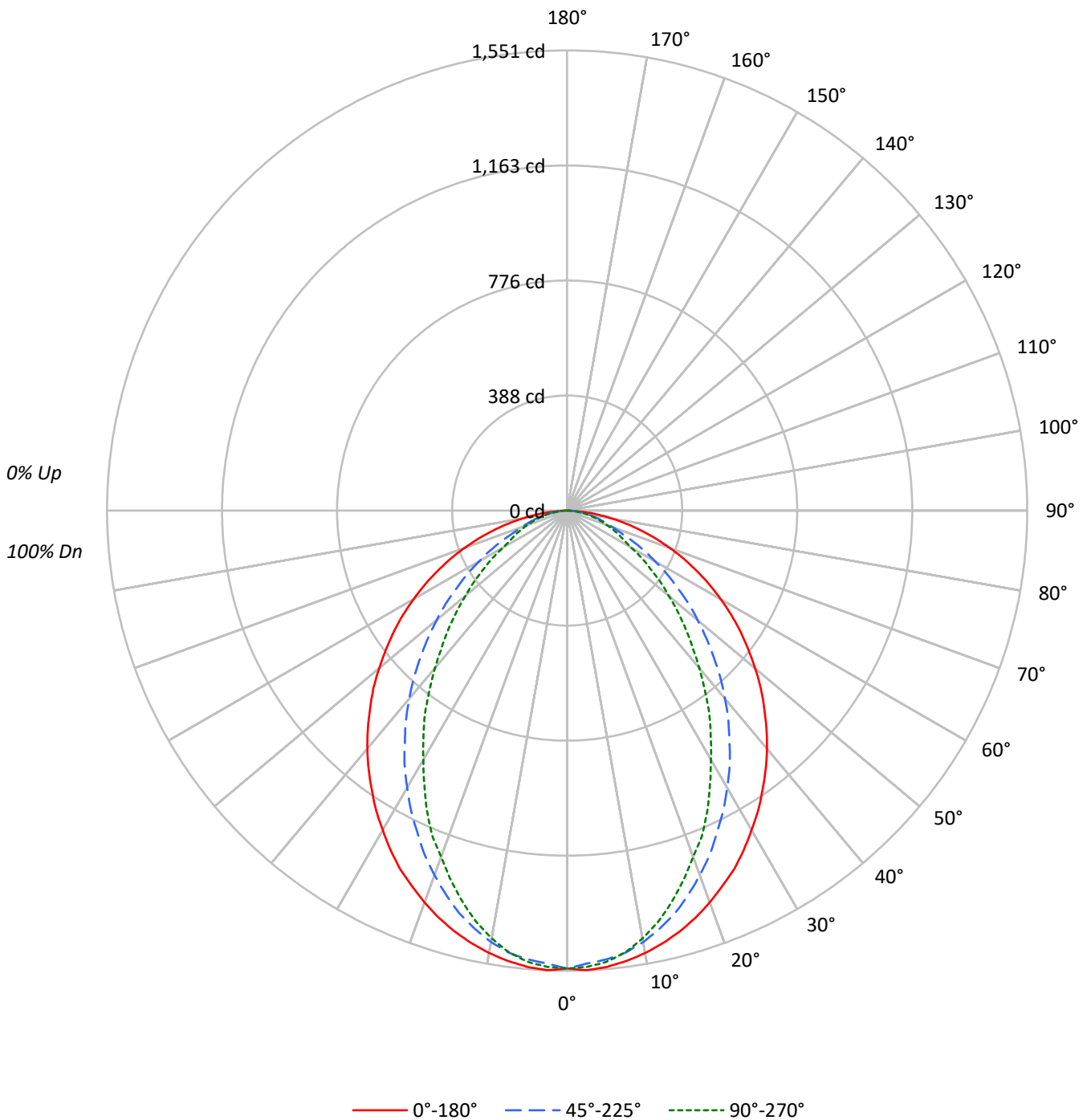
Lumens per Lamp: N/A
Luminaire Lumens: 3174.6 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P242362

CATALOG NUMBER: S122RDRP-S1005D830-X4F0-XX-UDD-F-W

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29402	29402	29402
5°	29514	29034	29193
10°	29289	28558	28316
15°	28952	27712	26913
20°	28486	26503	25173
25°	28009	25132	23486
30°	27346	23719	21324
35°	26701	22186	19426
40°	26051	20598	17229
45°	25286	18816	15241
50°	24506	17012	13287
55°	23704	15077	11410
60°	22777	13036	9474
65°	21720	10957	8627
70°	20461	9022	7936
75°	18914	8228	7404
80°	16706	7360	6746
85°	13135	5792	5792

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25286 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	4.6
10°-20°	397.1	12.5
20°-30°	557.6	17.6
30°-40°	607.8	19.1
40°-50°	558.6	17.6
50°-60°	438.7	13.8
60°-70°	285.6	9.0
70°-80°	147.0	4.6
80°-90°	37.5	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°	1099.4	34.6
0°-40°	1707.2	53.8
0°-60°	2704.5	85.2
0°-90°	3174.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3174.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1544	1544	1544	1544	1544	
5°	1544	1537	1518	1531	1527	146
15°	1468	1453	1405	1379	1365	414
25°	1333	1288	1196	1138	1118	613
35°	1148	1077	954	866	835	719
45°	939	845	698	599	566	725
55°	714	605	454	370	344	638
65°	482	369	243	196	191	478
75°	257	159	112	102	101	272
85°	60	31	26	26	26	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1543.6	1543.6	1543.6	1543.6	1543.6
2.5°	1550.6	1543.6	1528.2	1542.2	1539.4
5°	1543.6	1536.6	1518.5	1531.0	1526.8
7.5°	1531.0	1522.6	1503.1	1508.7	1501.7
10°	1514.3	1504.5	1476.5	1472.4	1464.0
12.5°	1493.3	1480.7	1443.0	1434.6	1419.3
15°	1468.2	1452.8	1405.3	1378.8	1364.8
17.5°	1438.8	1416.5	1357.8	1327.1	1304.7
20°	1405.3	1377.4	1307.5	1272.6	1241.9
22.5°	1369.0	1336.9	1255.8	1208.3	1187.4
25°	1332.7	1288.0	1195.8	1138.5	1117.5
27.5°	1289.4	1241.9	1139.9	1074.2	1042.1
30°	1243.3	1190.2	1078.4	1007.2	969.5
32.5°	1198.6	1134.3	1019.8	935.9	901.0
35°	1148.3	1077.0	954.1	866.1	835.4
37.5°	1099.4	1022.5	892.6	796.2	761.3
40°	1047.7	963.9	828.4	729.2	692.9
42.5°	994.6	905.2	764.1	660.7	625.8
45°	938.7	845.1	698.5	599.3	565.8
47.5°	885.6	786.5	635.6	536.4	505.7
50°	827.0	727.8	574.1	477.7	448.4
52.5°	769.7	664.9	515.5	423.3	396.7
55°	713.8	604.9	454.0	370.2	343.6
57.5°	656.6	544.8	399.5	321.3	298.9
60°	597.9	486.1	342.2	271.0	248.7
62.5°	540.6	428.9	293.4	226.3	215.1
65°	481.9	368.8	243.1	195.6	191.4
67.5°	426.1	312.9	195.6	171.8	167.6
70°	367.4	258.4	162.0	148.1	142.5
72.5°	311.5	208.1	135.5	124.3	121.5
75°	257.0	159.2	111.8	102.0	100.6
77.5°	202.6	113.2	88.0	82.4	79.6
80°	152.3	81.0	67.1	61.5	61.5
82.5°	106.2	54.5	46.1	43.3	43.3
85°	60.1	30.7	26.5	26.5	26.5
87.5°	22.4	11.2	11.2	9.8	9.8
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	22.98	24.50	23.35	24.82	25.13	18.94	20.46	19.31	20.78	21.09
	3H	24.75	26.11	25.12	26.44	26.80	20.21	21.57	20.59	21.90	22.26
	4H	25.41	26.69	25.81	27.04	27.42	20.71	21.99	21.11	22.34	22.72
	6H	25.90	27.09	26.31	27.45	27.84	21.09	22.27	21.50	22.64	23.03
	8H	26.07	27.19	26.49	27.58	27.99	21.21	22.34	21.64	22.73	23.13
	12H	26.17	27.25	26.60	27.63	28.06	21.30	22.37	21.73	22.76	23.19
4H	2H	23.09	24.37	23.49	24.72	25.09	19.64	20.92	20.04	21.27	21.65
	3H	25.02	26.08	25.43	26.48	26.88	21.08	22.14	21.49	22.54	22.94
	4H	25.77	26.72	26.20	27.14	27.58	21.68	22.64	22.11	23.05	23.49
	6H	26.36	27.19	26.82	27.64	28.09	22.17	23.00	22.63	23.44	23.90
	8H	26.57	27.35	27.04	27.80	28.26	22.33	23.11	22.79	23.55	24.02
	12H	26.73	27.42	27.21	27.90	28.37	22.45	23.14	22.93	23.62	24.09
8H	4H	25.79	26.57	26.26	27.01	27.48	22.03	22.81	22.50	23.26	23.72
	6H	26.43	27.07	26.93	27.56	28.04	22.62	23.26	23.12	23.75	24.23
	8H	26.68	27.26	27.19	27.77	28.26	22.84	23.42	23.36	23.93	24.42
	12H	26.89	27.40	27.39	27.89	28.45	23.02	23.53	23.53	24.02	24.59
12H	4H	25.78	26.47	26.26	26.95	27.42	22.08	22.77	22.56	23.25	23.72
	6H	26.41	26.99	26.93	27.50	27.99	22.68	23.26	23.20	23.77	24.26
	8H	26.70	27.21	27.21	27.70	28.26	22.96	23.47	23.47	23.96	24.52