

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: P242877

Luminaire Tested: S125RDRP-S1090D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242877  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D830-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

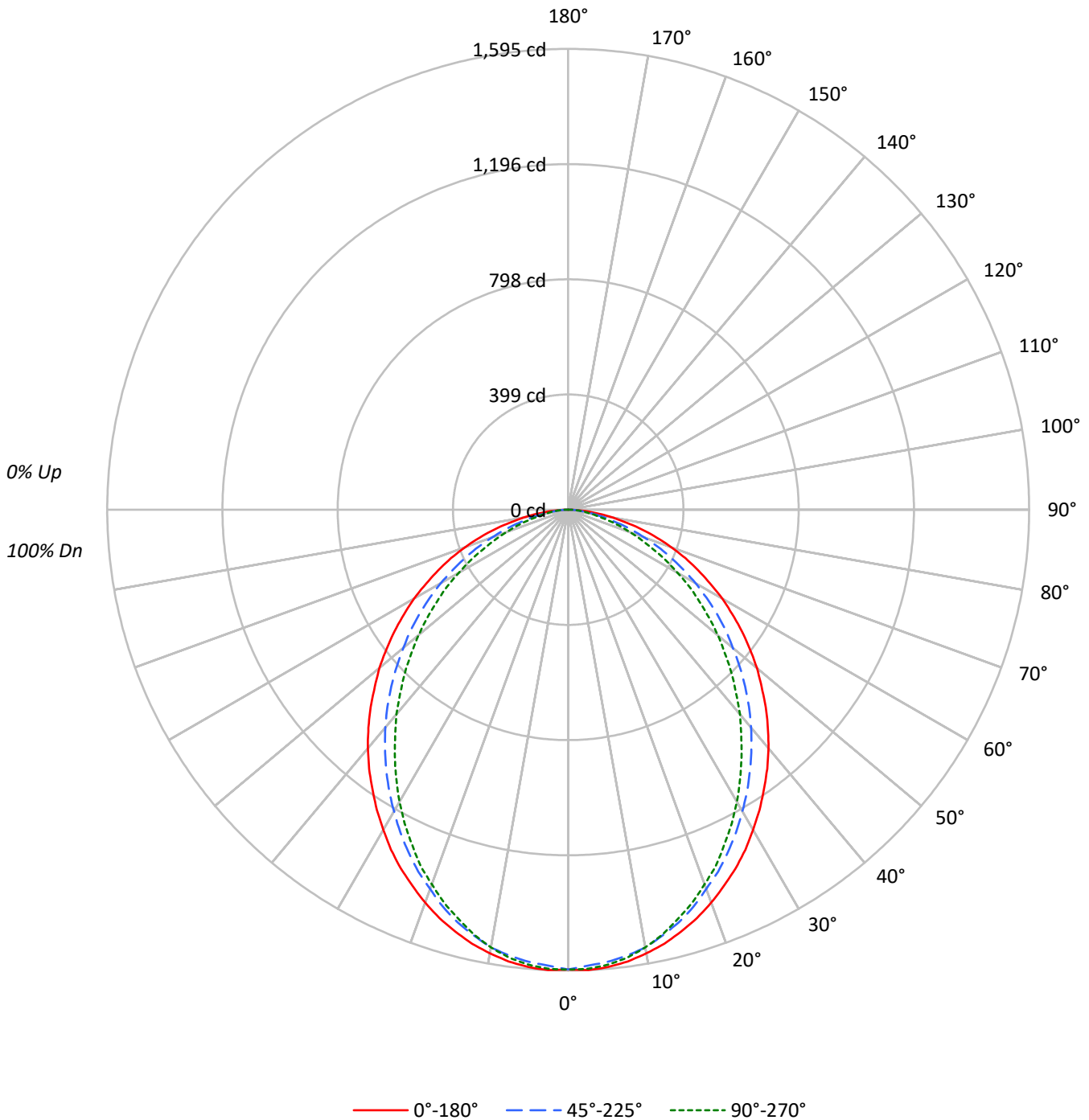
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3759.9 lumens  
Efficiency: N/A  
Efficacy: 108.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.8  
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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87					85				
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74					72				
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64					61				
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43					41				
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38					36				
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34					33				
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31					29				
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29					27				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11311	11311	11311
5°	11337	11208	11277
10°	11251	11103	11103
15°	11117	10878	10790
20°	10946	10564	10437
25°	10745	10255	10029
30°	10496	9894	9578
35°	10241	9522	9073
40°	10004	9133	8576
45°	9714	8698	8034
50°	9423	8226	7469
55°	9085	7774	6866
60°	8748	7227	6219
65°	8348	6589	5477
70°	7892	5796	4721
75°	7261	4885	3927
80°	6397	3839	3295
85°	5390	3140	2944

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9714 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.8	4.0
10°-20°	418.6	11.1
20°-30°	606.9	16.1
30°-40°	691.5	18.4
40°-50°	673.9	17.9
50°-60°	567.2	15.1
60°-70°	397.5	10.6
70°-80°	203.8	5.4
80°-90°	50.8	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°	1175.3	31.3
0°-40°	1866.7	49.6
0°-60°	3107.8	82.7
0°-90°	3759.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3759.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1591	1591	1591	1591	1591	
5°	1589	1584	1571	1583	1581	151
15°	1511	1504	1478	1477	1466	426
25°	1370	1352	1308	1292	1279	631
35°	1180	1152	1097	1062	1046	739
45°	966	932	865	817	799	745
55°	733	695	627	573	554	656
65°	496	456	392	344	326	492
75°	264	228	178	151	143	279
85°	66	44	38	37	36	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1591.4	1591.4	1591.4	1591.4	1591.4
2.5°	1595.0	1591.4	1579.4	1591.4	1590.2
5°	1589.0	1584.2	1571.0	1583.0	1580.6
7.5°	1577.0	1572.2	1556.6	1566.2	1563.8
10°	1559.0	1555.4	1538.5	1542.1	1538.5
12.5°	1538.5	1533.7	1509.7	1512.1	1506.1
15°	1510.9	1503.7	1478.4	1477.2	1466.4
17.5°	1482.0	1471.2	1441.2	1435.2	1426.7
20°	1447.2	1435.2	1396.7	1390.7	1379.9
22.5°	1408.7	1396.7	1355.8	1342.6	1334.2
25°	1370.2	1352.2	1307.7	1292.1	1278.9
27.5°	1327.0	1305.3	1258.5	1238.0	1224.8
30°	1278.9	1256.1	1205.6	1177.9	1167.1
32.5°	1232.0	1204.4	1152.7	1121.4	1107.0
35°	1180.3	1151.5	1097.4	1062.5	1045.7
37.5°	1131.1	1096.2	1040.9	1000.0	983.2
40°	1078.2	1042.1	984.4	938.7	924.3
42.5°	1022.9	985.6	925.5	882.2	859.4
45°	966.4	931.5	865.4	817.3	799.3
47.5°	907.5	871.4	805.3	756.0	735.6
50°	852.2	812.5	744.0	693.5	675.5
52.5°	792.1	751.2	687.5	632.2	614.2
55°	733.2	694.7	627.4	573.3	554.1
57.5°	673.1	632.2	567.3	514.4	497.6
60°	615.4	573.3	508.4	455.5	437.5
62.5°	554.1	514.4	448.3	400.3	382.2
65°	496.4	455.5	391.8	343.8	325.7
67.5°	438.7	397.9	336.6	290.9	276.5
70°	379.8	339.0	278.9	241.6	227.2
72.5°	322.1	282.5	227.2	193.5	185.1
75°	264.4	228.4	177.9	151.4	143.0
77.5°	205.5	176.7	134.6	114.2	107.0
80°	156.3	127.4	93.8	82.9	80.5
82.5°	108.2	82.9	62.5	58.9	57.7
85°	66.1	44.5	38.5	37.3	36.1
87.5°	27.6	19.2	18.0	18.0	16.8
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	19.77	21.34	20.13	21.66	21.97	18.20	19.77	18.56	20.09	20.40
	3H	21.55	22.97	21.93	23.30	23.66	19.51	20.93	19.89	21.26	21.62
	4H	22.21	23.55	22.61	23.89	24.27	19.92	21.26	20.32	21.60	21.98
	6H	22.68	23.92	23.09	24.28	24.67	20.18	21.41	20.59	21.78	22.17
	8H	22.83	24.01	23.26	24.40	24.80	20.26	21.44	20.69	21.83	22.23
	12H	22.93	24.06	23.36	24.44	24.87	20.32	21.44	20.75	21.82	22.25
4H	2H	20.16	21.49	20.56	21.84	22.22	18.89	20.22	19.29	20.57	20.94
	3H	22.14	23.25	22.55	23.65	24.05	20.39	21.50	20.80	21.90	22.30
	4H	22.93	23.93	23.36	24.34	24.78	20.88	21.88	21.31	22.30	22.74
	6H	23.52	24.39	23.97	24.83	25.29	21.23	22.10	21.68	22.54	23.00
	8H	23.71	24.53	24.17	24.97	25.44	21.34	22.15	21.80	22.59	23.06
	12H	23.85	24.58	24.33	25.06	25.53	21.42	22.15	21.90	22.63	23.10
8H	4H	23.05	23.87	23.51	24.31	24.78	21.20	22.01	21.66	22.46	22.92
	6H	23.73	24.40	24.22	24.89	25.37	21.62	22.30	22.12	22.79	23.26
	8H	23.97	24.58	24.48	25.09	25.57	21.78	22.39	22.29	22.89	23.38
	12H	24.17	24.70	24.68	25.20	25.76	21.92	22.46	22.43	22.95	23.51
12H	4H	23.04	23.77	23.52	24.25	24.72	21.23	21.97	21.72	22.44	22.91
	6H	23.72	24.33	24.23	24.84	25.32	21.67	22.28	22.18	22.79	23.27
	8H	24.01	24.54	24.52	25.03	25.60	21.88	22.41	22.39	22.91	23.47