

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: P242872

Luminaire Tested: S125RDRP-S1090D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242872
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-S1090D927-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

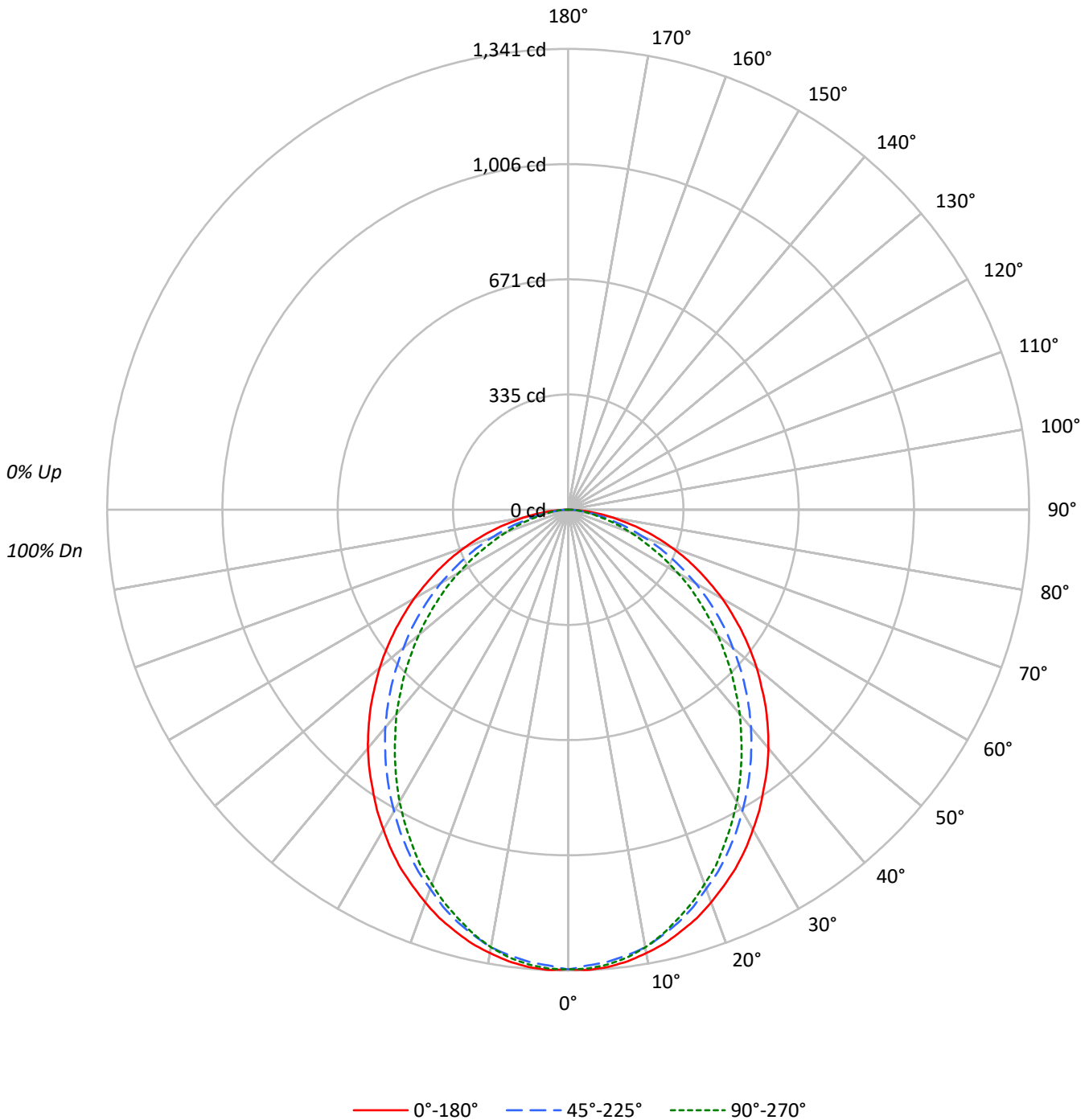
Lumens per Lamp: N/A
Luminaire Lumens: 3160.1 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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																		
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	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																												
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°	9506	9506	9506
5°	9528	9420	9477
10°	9456	9332	9332
15°	9344	9143	9069
20°	9199	8879	8771
25°	9032	8619	8429
30°	8822	8316	8050
35°	8607	8002	7626
40°	8408	7677	7208
45°	8164	7311	6752
50°	7920	6914	6277
55°	7636	6534	5771
60°	7352	6074	5227
65°	7016	5538	4605
70°	6633	4871	3967
75°	6102	4105	3301
80°	5374	3225	2771
85°	4534	2634	2471

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8164 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.9	4.0
10°-20°	351.8	11.1
20°-30°	510.1	16.1
30°-40°	581.1	18.4
40°-50°	566.5	17.9
50°-60°	476.7	15.1
60°-70°	334.1	10.6
70°-80°	171.2	5.4
80°-90°	42.7	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°	987.8	31.3
0°-40°	1568.9	49.6
0°-60°	2612.1	82.7
0°-90°	3160.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3160.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1338	1338	1338	1338	1338	
5°	1336	1332	1320	1330	1328	127
15°	1270	1264	1243	1242	1232	358
25°	1152	1136	1099	1086	1075	530
35°	992	968	922	893	879	621
45°	812	783	727	687	672	626
55°	616	584	527	482	466	551
65°	417	383	329	289	274	413
75°	222	192	150	127	120	235
85°	56	37	32	31	30	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1337.5	1337.5	1337.5	1337.5	1337.5
2.5°	1340.6	1337.5	1327.4	1337.5	1336.5
5°	1335.5	1331.5	1320.4	1330.5	1328.4
7.5°	1325.4	1321.4	1308.2	1316.3	1314.3
10°	1310.3	1307.2	1293.1	1296.1	1293.1
12.5°	1293.1	1289.0	1268.8	1270.9	1265.8
15°	1269.9	1263.8	1242.6	1241.6	1232.5
17.5°	1245.6	1236.5	1211.3	1206.2	1199.1
20°	1216.3	1206.2	1173.9	1168.8	1159.7
22.5°	1184.0	1173.9	1139.5	1128.4	1121.4
25°	1151.7	1136.5	1099.1	1086.0	1074.9
27.5°	1115.3	1097.1	1057.7	1040.5	1029.4
30°	1074.9	1055.7	1013.3	990.0	980.9
32.5°	1035.5	1012.2	968.8	942.5	930.4
35°	992.0	967.8	922.3	893.0	878.9
37.5°	950.6	921.3	874.9	840.5	826.4
40°	906.2	875.9	827.4	789.0	776.9
42.5°	859.7	828.4	777.9	741.5	722.3
45°	812.2	782.9	727.4	687.0	671.8
47.5°	762.7	732.4	676.9	635.4	618.3
50°	716.3	682.9	625.3	582.9	567.7
52.5°	665.7	631.4	577.8	531.4	516.2
55°	616.2	583.9	527.3	481.9	465.7
57.5°	565.7	531.4	476.8	432.4	418.2
60°	517.2	481.9	427.3	382.9	367.7
62.5°	465.7	432.4	376.8	336.4	321.3
65°	417.2	382.9	329.3	288.9	273.8
67.5°	368.7	334.4	282.9	244.5	232.4
70°	319.2	284.9	234.4	203.1	190.9
72.5°	270.7	237.4	190.9	162.6	155.6
75°	222.2	191.9	149.5	127.3	120.2
77.5°	172.7	148.5	113.1	96.0	89.9
80°	131.3	107.1	78.8	69.7	67.7
82.5°	90.9	69.7	52.5	49.5	48.5
85°	55.6	37.4	32.3	31.3	30.3
87.5°	23.2	16.2	15.2	15.2	14.1
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	19.16	20.74	19.53	21.05	21.37	17.60	19.17	17.96	19.49	19.80
	3H	20.95	22.37	21.33	22.69	23.05	18.91	20.33	19.29	20.66	21.02
	4H	21.61	22.94	22.01	23.29	23.67	19.32	20.65	19.72	21.00	21.38
	6H	22.08	23.31	22.49	23.68	24.07	19.58	20.81	19.99	21.17	21.57
	8H	22.23	23.40	22.65	23.79	24.19	19.66	20.83	20.08	21.22	21.62
	12H	22.33	23.45	22.76	23.83	24.26	19.71	20.84	20.14	21.22	21.65
4H	2H	19.56	20.89	19.95	21.24	21.61	18.28	19.62	18.68	19.96	20.34
	3H	21.54	22.65	21.95	23.05	23.45	19.78	20.90	20.19	21.29	21.69
	4H	22.32	23.32	22.75	23.74	24.18	20.28	21.28	20.71	21.70	22.13
	6H	22.92	23.79	23.37	24.23	24.69	20.62	21.49	21.08	21.94	22.39
	8H	23.11	23.92	23.57	24.37	24.83	20.73	21.55	21.19	21.99	22.46
	12H	23.25	23.98	23.73	24.45	24.92	20.82	21.55	21.30	22.03	22.50
8H	4H	22.45	23.26	22.91	23.70	24.17	20.59	21.41	21.06	21.85	22.32
	6H	23.12	23.80	23.62	24.29	24.76	21.02	21.69	21.51	22.18	22.66
	8H	23.37	23.97	23.88	24.48	24.97	21.18	21.78	21.69	22.29	22.78
	12H	23.56	24.10	24.07	24.59	25.15	21.32	21.85	21.83	22.34	22.91
12H	4H	22.44	23.17	22.92	23.65	24.12	20.63	21.36	21.11	21.84	22.31
	6H	23.12	23.72	23.63	24.23	24.72	21.07	21.68	21.58	22.18	22.67
	8H	23.40	23.94	23.91	24.43	24.99	21.28	21.81	21.78	22.30	22.86