

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: P243761

Luminaire Tested: S125RDRP-H1090D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243761
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-66)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-H1090D940-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

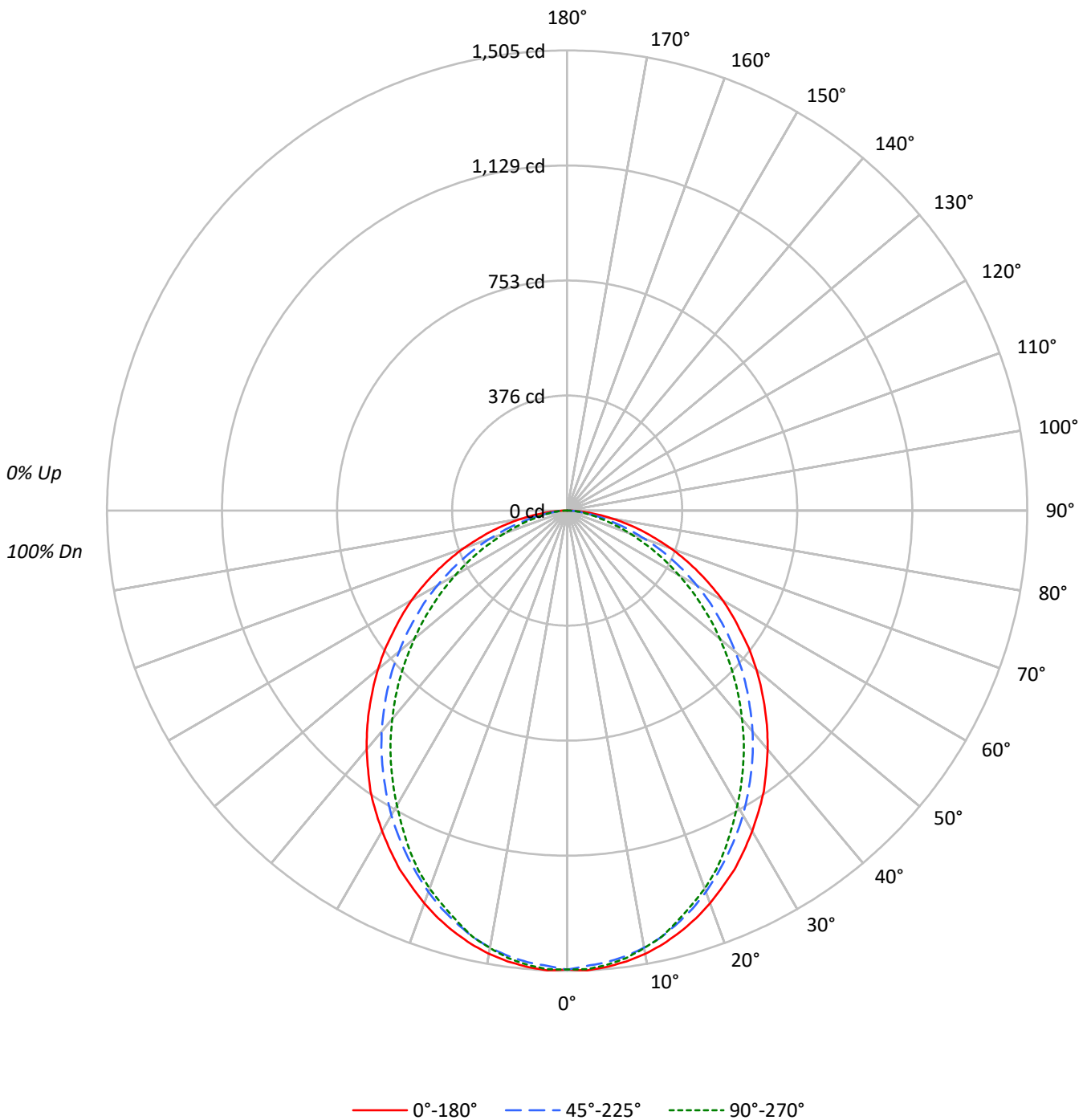
Lumens per Lamp: N/A
Luminaire Lumens: 3587.9 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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					85			
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32					32			
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29					29			
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10668	10668	10668
5°	10686	10579	10640
10°	10624	10477	10484
15°	10500	10278	10231
20°	10338	10037	9948
25°	10155	9742	9582
30°	9931	9437	9138
35°	9726	9102	8720
40°	9464	8757	8248
45°	9195	8364	7760
50°	8927	7930	7206
55°	8608	7451	6626
60°	8348	6960	5999
65°	7945	6374	5309
70°	7498	5577	4530
75°	6898	4657	3685
80°	6066	3602	3033
85°	5162	2976	2805

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9195 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.4	3.9
10°-20°	396.0	11.0
20°-30°	576.3	16.1
30°-40°	660.0	18.4
40°-50°	645.8	18.0
50°-60°	545.2	15.2
60°-70°	381.7	10.6
70°-80°	193.9	5.4
80°-90°	47.7	1.3
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°	1113.7	31.0
0°-40°	1773.6	49.4
0°-60°	2964.6	82.6
0°-90°	3587.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3587.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1501	1501	1501	1501	1501	
5°	1498	1495	1483	1492	1491	142
15°	1427	1422	1397	1396	1390	402
25°	1295	1280	1242	1229	1222	596
35°	1121	1094	1049	1018	1005	700
45°	915	885	832	788	772	706
55°	695	665	601	553	535	623
65°	472	436	379	332	316	468
75°	251	220	170	142	134	266
85°	63	41	36	34	34	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1501.0	1501.0	1501.0	1501.0	1501.0
2.5°	1505.3	1502.1	1490.3	1501.0	1501.0
5°	1497.8	1494.6	1482.8	1492.5	1491.4
7.5°	1487.1	1483.9	1469.9	1479.6	1476.3
10°	1472.1	1467.8	1451.7	1457.0	1452.7
12.5°	1451.7	1447.4	1428.0	1430.2	1428.0
15°	1427.0	1421.6	1396.9	1395.8	1390.5
17.5°	1399.0	1391.5	1364.7	1361.5	1352.9
20°	1366.8	1357.2	1327.1	1320.7	1315.3
22.5°	1330.3	1320.7	1285.2	1275.6	1272.3
25°	1294.9	1279.9	1242.3	1229.4	1221.9
27.5°	1253.0	1235.8	1197.2	1180.0	1167.1
30°	1210.1	1190.7	1149.9	1127.4	1113.4
32.5°	1166.0	1143.5	1099.5	1071.6	1059.7
35°	1121.0	1094.1	1049.0	1017.9	1005.0
37.5°	1069.4	1042.6	997.5	961.0	949.2
40°	1020.0	992.1	943.8	904.1	889.0
42.5°	968.5	939.5	886.9	845.0	832.1
45°	914.8	884.7	832.1	788.1	772.0
47.5°	861.1	831.0	776.3	732.3	711.9
50°	807.4	775.2	717.2	672.1	651.7
52.5°	753.7	718.3	661.4	613.1	594.8
55°	694.7	664.6	601.3	553.0	534.7
57.5°	642.1	608.8	548.7	499.3	478.9
60°	587.3	550.8	489.6	441.3	422.0
62.5°	529.3	492.8	433.8	385.5	368.3
65°	472.4	435.9	379.0	331.8	315.7
67.5°	415.5	381.2	324.3	280.2	262.0
70°	360.8	325.3	268.4	228.7	218.0
72.5°	302.8	274.9	218.0	182.5	173.9
75°	251.2	220.1	169.6	141.7	134.2
77.5°	198.6	168.6	125.6	106.3	99.9
80°	148.2	122.4	88.0	76.2	74.1
82.5°	102.0	77.3	58.0	55.8	54.8
85°	63.3	40.8	36.5	34.4	34.4
87.5°	26.8	17.2	17.2	16.1	17.2
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	19.65	21.23	20.02	21.54	21.86	18.14	19.72	18.51	20.03	20.35
	3H	21.41	22.83	21.79	23.16	23.52	19.42	20.84	19.80	21.17	21.53
	4H	22.07	23.40	22.47	23.75	24.13	19.81	21.14	20.21	21.49	21.87
	6H	22.54	23.77	22.95	24.14	24.53	20.04	21.28	20.45	21.64	22.03
	8H	22.68	23.86	23.11	24.25	24.65	20.12	21.30	20.54	21.69	22.09
	12H	22.78	23.91	23.21	24.29	24.72	20.17	21.30	20.60	21.68	22.11
4H	2H	20.05	21.39	20.45	21.73	22.11	18.83	20.16	19.22	20.51	20.89
	3H	22.01	23.13	22.42	23.52	23.92	20.29	21.40	20.70	21.80	22.20
	4H	22.79	23.80	23.23	24.21	24.65	20.76	21.76	21.19	22.17	22.61
	6H	23.39	24.26	23.84	24.70	25.16	21.07	21.95	21.53	22.39	22.85
	8H	23.57	24.39	24.03	24.83	25.30	21.18	22.00	21.64	22.44	22.91
	12H	23.71	24.44	24.19	24.92	25.39	21.26	22.00	21.75	22.47	22.94
8H	4H	22.91	23.73	23.38	24.17	24.64	21.06	21.88	21.53	22.32	22.79
	6H	23.59	24.26	24.08	24.75	25.23	21.46	22.13	21.95	22.62	23.10
	8H	23.83	24.43	24.34	24.94	25.43	21.61	22.22	22.12	22.73	23.21
	12H	24.02	24.55	24.52	25.04	25.60	21.75	22.28	22.26	22.78	23.34
12H	4H	22.91	23.64	23.39	24.11	24.58	21.10	21.83	21.58	22.31	22.78
	6H	23.58	24.19	24.09	24.70	25.18	21.51	22.11	22.02	22.62	23.11
	8H	23.86	24.39	24.37	24.88	25.45	21.71	22.24	22.22	22.73	23.30