

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: P242881

Luminaire Tested: S125RDRP-S1090D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242881
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-S1090D835-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

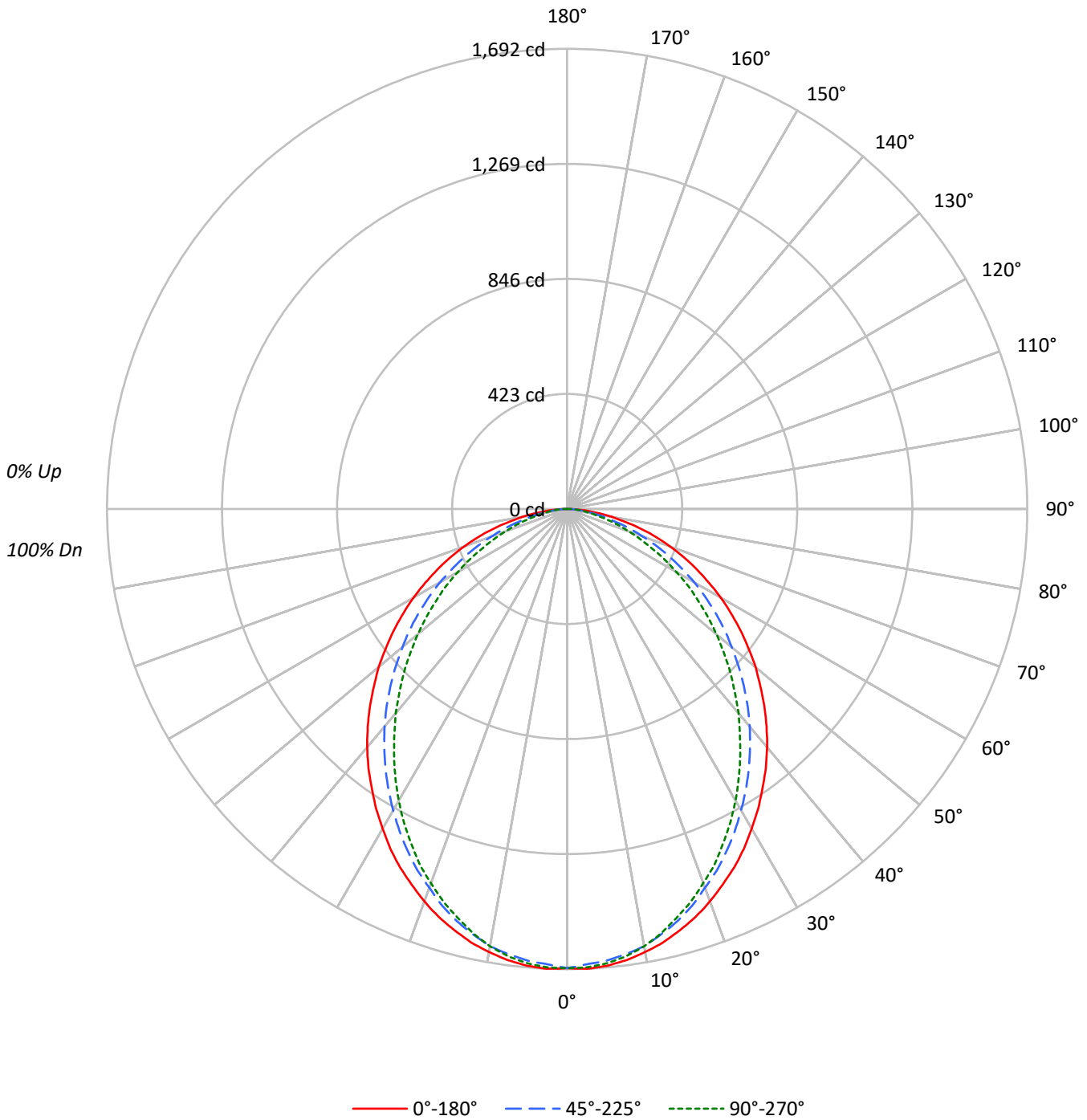
Lumens per Lamp: N/A
Luminaire Lumens: 3989.2 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P242881

CATALOG NUMBER: S125RDRP-S1090D835-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242881

CATALOG NUMBER: S125RDRP-S1090D835-X4F0-XX-UDD-F-W

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	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°	12000	12000	12000
5°	12028	11891	11964
10°	11937	11780	11780
15°	11795	11542	11448
20°	11613	11208	11073
25°	11401	10881	10641
30°	11136	10497	10163
35°	10866	10102	9627
40°	10613	9690	9099
45°	10306	9229	8524
50°	9997	8728	7925
55°	9639	8249	7285
60°	9281	7667	6598
65°	8858	6991	5812
70°	8375	6149	5008
75°	7705	5182	4169
80°	6786	4072	3495
85°	5716	3327	3123

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10306 cd/sqm



TEST NUMBER: P242881

CATALOG NUMBER: S125RDRP-S1090D835-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.9	4.0
10°-20°	444.1	11.1
20°-30°	643.9	16.1
30°-40°	733.6	18.4
40°-50°	715.0	17.9
50°-60°	601.8	15.1
60°-70°	421.7	10.6
70°-80°	216.2	5.4
80°-90°	53.9	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°	1246.9	31.3
0°-40°	1980.5	49.6
0°-60°	3297.3	82.7
0°-90°	3989.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3989.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1686	1681	1667	1680	1677	160
15°	1603	1595	1569	1567	1556	452
25°	1454	1435	1388	1371	1357	669
35°	1252	1222	1164	1127	1110	784
45°	1025	988	918	867	848	791
55°	778	737	666	608	588	696
65°	527	483	416	365	346	522
75°	281	242	189	161	152	297
85°	70	47	41	40	38	81
90°	0	0	0	0	0	



TEST NUMBER: P242881

CATALOG NUMBER: S125RDRP-S1090D835-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1688.4	1688.4	1688.4	1688.4	1688.4
2.5°	1692.3	1688.4	1675.7	1688.4	1687.2
5°	1685.9	1680.8	1666.7	1679.5	1676.9
7.5°	1673.1	1668.0	1651.4	1661.6	1659.1
10°	1654.0	1650.2	1632.3	1636.1	1632.3
12.5°	1632.3	1627.2	1601.7	1604.3	1597.9
15°	1603.0	1595.3	1568.6	1567.3	1555.8
17.5°	1572.4	1560.9	1529.0	1522.6	1513.7
20°	1535.4	1522.6	1481.8	1475.5	1464.0
22.5°	1494.6	1481.8	1438.5	1424.4	1415.5
25°	1453.8	1434.7	1387.5	1370.9	1356.9
27.5°	1407.9	1384.9	1335.2	1313.5	1299.5
30°	1356.9	1332.6	1279.1	1249.7	1238.3
32.5°	1307.1	1277.8	1223.0	1189.8	1174.5
35°	1252.3	1221.7	1164.3	1127.3	1109.5
37.5°	1200.0	1163.0	1104.4	1061.0	1043.2
40°	1143.9	1105.6	1044.4	996.0	980.7
42.5°	1085.2	1045.7	981.9	936.0	911.8
45°	1025.3	988.3	918.2	867.2	848.0
47.5°	962.8	924.6	854.4	802.1	780.5
50°	904.1	862.1	789.4	735.8	716.7
52.5°	840.4	797.0	729.4	670.8	651.7
55°	777.9	737.1	665.7	608.3	587.9
57.5°	714.1	670.8	601.9	545.8	528.0
60°	652.9	608.3	539.4	483.3	464.2
62.5°	587.9	545.8	475.7	424.7	405.5
65°	526.7	483.3	415.7	364.7	345.6
67.5°	465.5	422.1	357.1	308.6	293.3
70°	403.0	359.6	295.9	256.3	241.0
72.5°	341.8	299.7	241.0	205.3	196.4
75°	280.6	242.3	188.7	160.7	151.8
77.5°	218.1	187.5	142.8	121.1	113.5
80°	165.8	135.2	99.5	88.0	85.4
82.5°	114.8	88.0	66.3	62.5	61.2
85°	70.1	47.2	40.8	39.5	38.3
87.5°	29.3	20.4	19.1	19.1	17.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242881
 CATALOG NUMBER: S125RDRP-S1090D835-X4F0-XX-UDD-F-W

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	19.97	21.55	20.34	21.86	22.18	18.41	19.98	18.77	20.29	20.61
	3H	21.76	23.18	22.13	23.50	23.86	19.72	21.14	20.10	21.46	21.83
	4H	22.42	23.75	22.82	24.10	24.48	20.13	21.46	20.53	21.81	22.19
	6H	22.89	24.12	23.30	24.49	24.88	20.39	21.62	20.80	21.98	22.38
	8H	23.04	24.21	23.46	24.60	25.00	20.47	21.64	20.89	22.03	22.43
	12H	23.14	24.26	23.57	24.64	25.07	20.52	21.65	20.95	22.03	22.46
4H	2H	20.36	21.70	20.76	22.05	22.42	19.09	20.43	19.49	20.77	21.15
	3H	22.35	23.46	22.76	23.86	24.26	20.59	21.70	21.00	22.10	22.50
	4H	23.13	24.13	23.56	24.55	24.98	21.09	22.09	21.52	22.50	22.94
	6H	23.73	24.60	24.18	25.04	25.50	21.43	22.30	21.89	22.75	23.20
	8H	23.92	24.73	24.38	25.18	25.64	21.54	22.36	22.00	22.80	23.27
	12H	24.06	24.79	24.54	25.26	25.73	21.63	22.36	22.11	22.84	23.31
8H	4H	23.26	24.07	23.72	24.51	24.98	21.40	22.22	21.86	22.66	23.13
	6H	23.93	24.61	24.43	25.10	25.57	21.83	22.50	22.32	22.99	23.47
	8H	24.18	24.78	24.69	25.29	25.78	21.99	22.59	22.50	23.10	23.59
	12H	24.37	24.91	24.88	25.40	25.96	22.13	22.66	22.63	23.15	23.72
12H	4H	23.25	23.98	23.73	24.46	24.93	21.44	22.17	21.92	22.65	23.12
	6H	23.93	24.53	24.44	25.04	25.53	21.88	22.48	22.39	22.99	23.48
	8H	24.21	24.75	24.72	25.24	25.80	22.08	22.62	22.59	23.11	23.67