

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: P242900

Luminaire Tested: S125RDRP-S850D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242900
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-S850D940-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

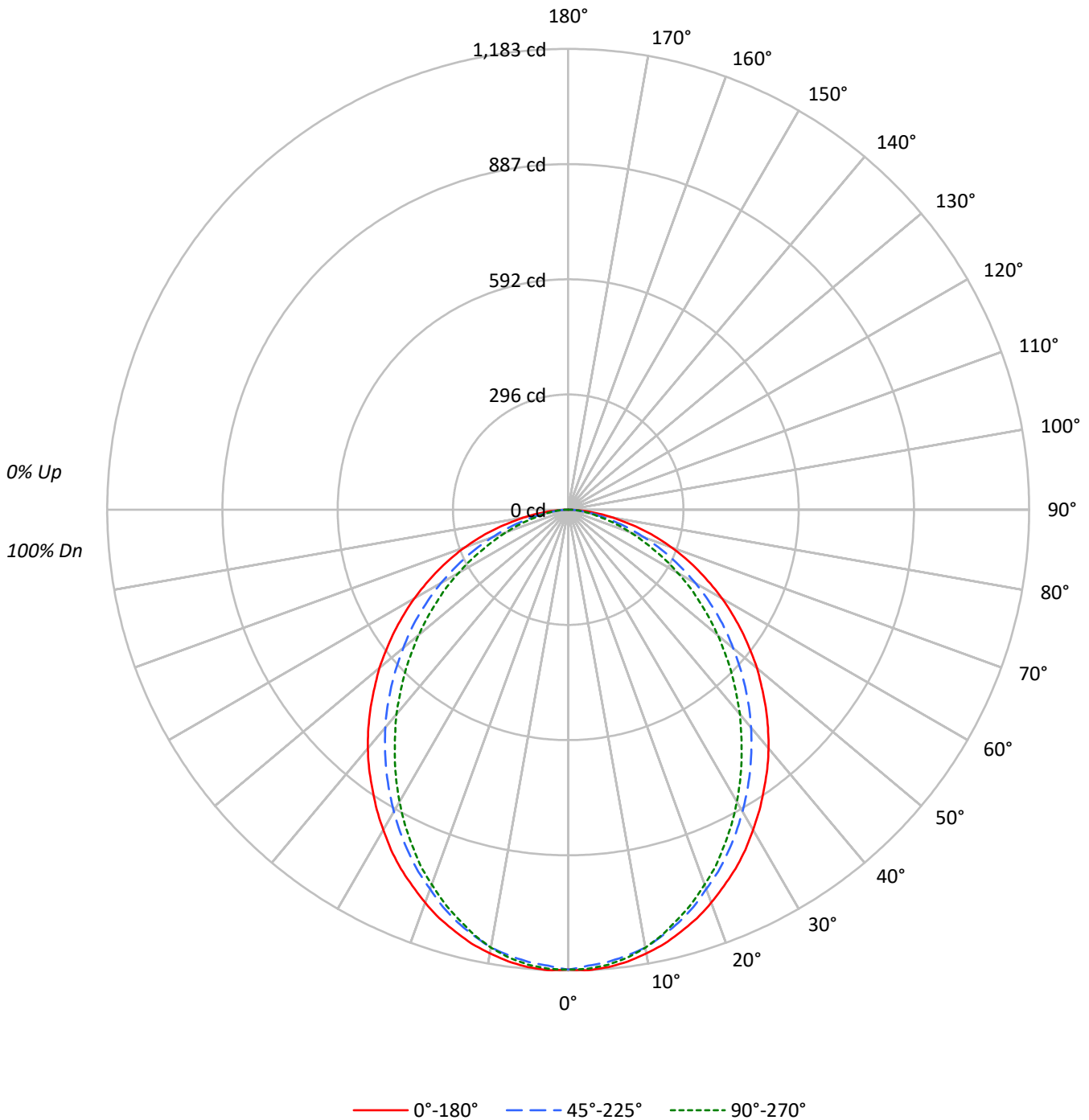
Lumens per Lamp: N/A
Luminaire Lumens: 2789.4 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8391	8391	8391
5°	8410	8315	8366
10°	8346	8237	8237
15°	8248	8070	8005
20°	8120	7837	7743
25°	7972	7608	7441
30°	7787	7340	7106
35°	7598	7064	6731
40°	7421	6776	6362
45°	7206	6453	5960
50°	6990	6103	5541
55°	6740	5768	5094
60°	6490	5362	4614
65°	6194	4889	4065
70°	5856	4299	3502
75°	5388	3625	2914
80°	4744	2849	2443
85°	3996	2324	2185

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7206 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	4.0
10°-20°	310.5	11.1
20°-30°	450.3	16.1
30°-40°	513.0	18.4
40°-50°	500.0	17.9
50°-60°	420.8	15.1
60°-70°	294.9	10.6
70°-80°	151.2	5.4
80°-90°	37.7	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°	871.9	31.3
0°-40°	1384.9	49.6
0°-60°	2305.7	82.7
0°-90°	2789.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2789.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1181	1181	1181	1181	1181	
5°	1179	1175	1166	1174	1173	112
15°	1121	1116	1097	1096	1088	316
25°	1017	1003	970	959	949	468
35°	876	854	814	788	776	548
45°	717	691	642	606	593	553
55°	544	515	466	425	411	486
65°	368	338	291	255	242	365
75°	196	169	132	112	106	207
85°	49	33	28	28	27	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.6	1180.6	1180.6	1180.6	1180.6
2.5°	1183.3	1180.6	1171.7	1180.6	1179.7
5°	1178.8	1175.3	1165.5	1174.4	1172.6
7.5°	1169.9	1166.4	1154.8	1161.9	1160.1
10°	1156.5	1153.9	1141.4	1144.1	1141.4
12.5°	1141.4	1137.8	1120.0	1121.8	1117.3
15°	1120.9	1115.5	1096.8	1095.9	1087.9
17.5°	1099.5	1091.5	1069.2	1064.7	1058.5
20°	1073.6	1064.7	1036.2	1031.7	1023.7
22.5°	1045.1	1036.2	1005.8	996.0	989.8
25°	1016.6	1003.2	970.2	958.6	948.8
27.5°	984.4	968.4	933.6	918.5	908.7
30°	948.8	931.8	894.4	873.9	865.9
32.5°	914.0	893.5	855.2	832.0	821.3
35°	875.7	854.3	814.1	788.3	775.8
37.5°	839.1	813.2	772.2	741.9	729.4
40°	799.9	773.1	730.3	696.4	685.7
42.5°	758.8	731.2	686.6	654.5	637.6
45°	716.9	691.1	642.0	606.4	593.0
47.5°	673.2	646.5	597.4	560.9	545.7
50°	632.2	602.8	552.0	514.5	501.1
52.5°	587.6	557.3	510.1	469.0	455.7
55°	543.9	515.4	465.5	425.3	411.1
57.5°	499.4	469.0	420.9	381.7	369.2
60°	456.6	425.3	377.2	338.0	324.6
62.5°	411.1	381.7	332.6	296.9	283.6
65°	368.3	338.0	290.7	255.0	241.7
67.5°	325.5	295.2	249.7	215.8	205.1
70°	281.8	251.5	206.9	179.2	168.5
72.5°	239.0	209.6	168.5	143.6	137.3
75°	196.2	169.4	132.0	112.4	106.1
77.5°	152.5	131.1	99.9	84.7	79.4
80°	115.9	94.5	69.6	61.5	59.7
82.5°	80.3	61.5	46.4	43.7	42.8
85°	49.0	33.0	28.5	27.6	26.8
87.5°	20.5	14.3	13.4	13.4	12.5
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	18.73	20.31	19.09	20.62	20.93	17.16	18.74	17.53	19.05	19.37
	3H	20.51	21.93	20.89	22.26	22.62	18.48	19.90	18.85	20.22	20.58
	4H	21.18	22.51	21.58	22.86	23.23	18.89	20.22	19.29	20.57	20.94
	6H	21.65	22.88	22.06	23.24	23.64	19.14	20.38	19.55	20.74	21.13
	8H	21.79	22.97	22.22	23.36	23.76	19.22	20.40	19.65	20.79	21.19
	12H	21.89	23.02	22.32	23.40	23.83	19.28	20.40	19.71	20.79	21.22
4H	2H	19.12	20.45	19.52	20.80	21.18	17.85	19.18	18.25	19.53	19.91
	3H	21.10	22.22	21.51	22.61	23.01	19.35	20.46	19.76	20.86	21.26
	4H	21.89	22.89	22.32	23.30	23.74	19.85	20.85	20.28	21.26	21.70
	6H	22.48	23.35	22.94	23.80	24.25	20.19	21.06	20.64	21.50	21.96
	8H	22.67	23.49	23.14	23.93	24.40	20.30	21.11	20.76	21.56	22.02
	12H	22.81	23.54	23.29	24.02	24.49	20.39	21.12	20.87	21.59	22.06
8H	4H	22.01	22.83	22.47	23.27	23.74	20.16	20.98	20.62	21.42	21.89
	6H	22.69	23.36	23.18	23.85	24.33	20.58	21.26	21.08	21.75	22.23
	8H	22.94	23.54	23.45	24.05	24.54	20.74	21.35	21.26	21.86	22.34
	12H	23.13	23.67	23.64	24.16	24.72	20.88	21.42	21.39	21.91	22.47
12H	4H	22.01	22.74	22.49	23.21	23.68	20.20	20.93	20.68	21.41	21.88
	6H	22.68	23.29	23.19	23.80	24.28	20.63	21.24	21.15	21.75	22.24
	8H	22.97	23.51	23.48	24.00	24.56	20.84	21.38	21.35	21.87	22.43