

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: P243760

Luminaire Tested: S125RDRP-H850D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243760
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-H850D940-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

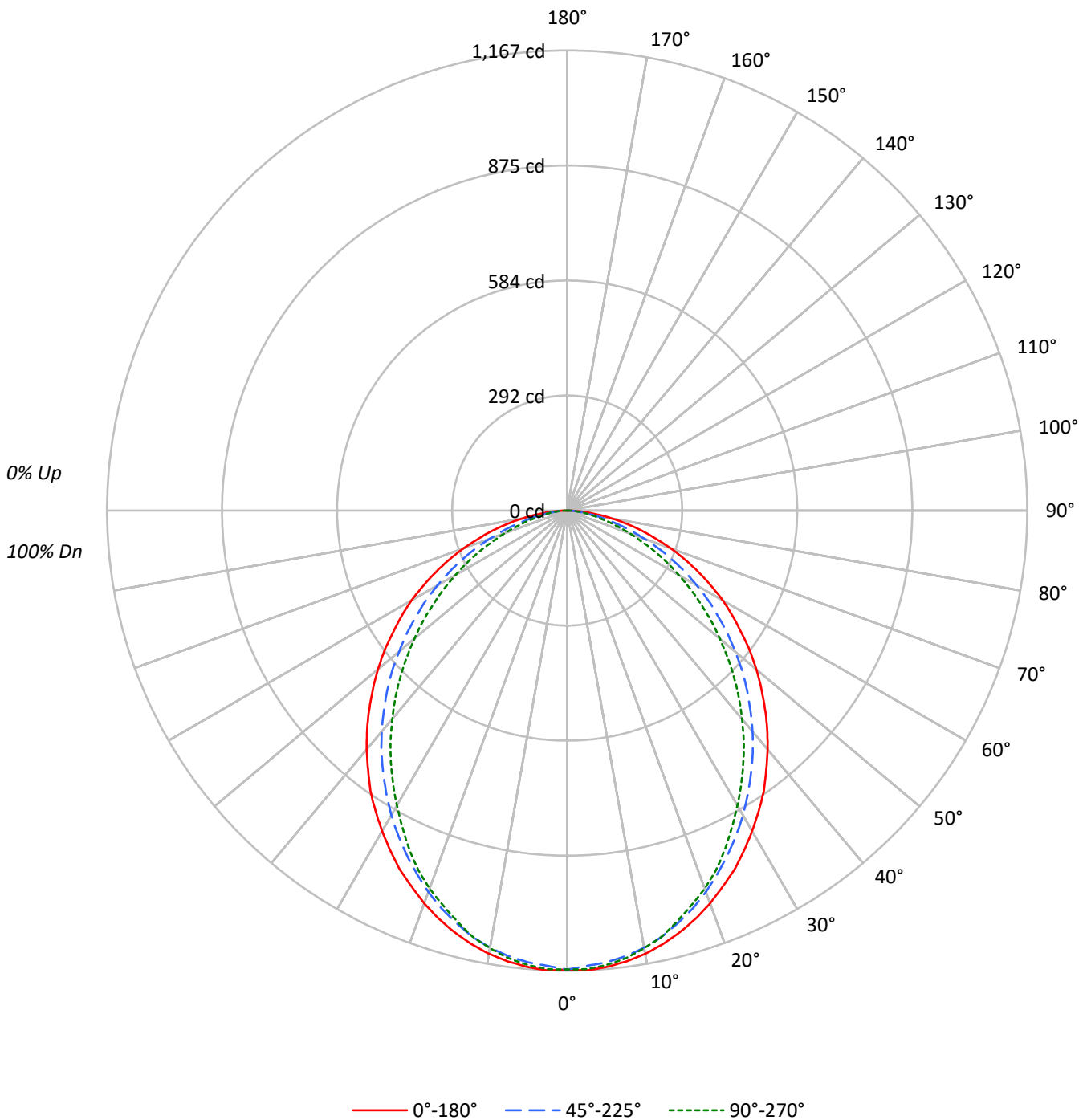
Lumens per Lamp: N/A
Luminaire Lumens: 2782.1 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 23.6
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: P243760

CATALOG NUMBER: S125RDRP-H850D940-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P243760

CATALOG NUMBER: S125RDRP-H850D940-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	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	97	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	63	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	43	55	48	43	53	47	43					41				
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38					36				
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34					32				
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31					29				
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8272	8272	8272
5°	8286	8203	8250
10°	8238	8123	8130
15°	8142	7970	7933
20°	8017	7784	7714
25°	7874	7554	7430
30°	7700	7318	7086
35°	7542	7057	6762
40°	7338	6790	6396
45°	7130	6485	6017
50°	6923	6150	5588
55°	6675	5777	5137
60°	6473	5397	4651
65°	6160	4943	4117
70°	5812	4324	3512
75°	5349	3611	2859
80°	4703	2795	2349
85°	4004	2308	2169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7130 cd/sqm



TEST NUMBER: P243760

CATALOG NUMBER: S125RDRP-H850D940-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.6	3.9
10°-20°	307.1	11.0
20°-30°	446.8	16.1
30°-40°	511.7	18.4
40°-50°	500.7	18.0
50°-60°	422.8	15.2
60°-70°	296.0	10.6
70°-80°	150.3	5.4
80°-90°	37.0	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°	863.5	31.0
0°-40°	1375.3	49.4
0°-60°	2298.8	82.6
0°-90°	2782.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2782.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1164	1164	1164	1164	1164	
5°	1161	1159	1150	1157	1156	110
15°	1106	1102	1083	1082	1078	312
25°	1004	992	963	953	948	462
35°	869	848	813	789	779	543
45°	709	686	645	611	599	547
55°	539	515	466	429	415	483
65°	366	338	294	257	245	363
75°	195	171	132	110	104	206
85°	49	32	28	27	27	56
90°	0	0	0	0	0	



TEST NUMBER: P243760

CATALOG NUMBER: S125RDRP-H850D940-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1163.9	1163.9	1163.9	1163.9	1163.9
2.5°	1167.3	1164.8	1155.6	1163.9	1163.9
5°	1161.4	1158.9	1149.8	1157.3	1156.4
7.5°	1153.1	1150.6	1139.8	1147.3	1144.8
10°	1141.5	1138.1	1125.6	1129.8	1126.5
12.5°	1125.6	1122.3	1107.3	1109.0	1107.3
15°	1106.5	1102.3	1083.2	1082.3	1078.2
17.5°	1084.8	1079.0	1058.2	1055.7	1049.0
20°	1059.9	1052.4	1029.1	1024.1	1019.9
22.5°	1031.6	1024.1	996.6	989.1	986.6
25°	1004.1	992.4	963.3	953.3	947.5
27.5°	971.6	958.3	928.3	915.0	905.0
30°	938.3	923.3	891.7	874.2	863.4
32.5°	904.2	886.7	852.6	830.9	821.7
35°	869.2	848.4	813.4	789.3	779.3
37.5°	829.2	808.4	773.5	745.2	736.0
40°	790.9	769.3	731.8	701.0	689.4
42.5°	751.0	728.5	687.7	655.2	645.2
45°	709.4	686.0	645.2	611.1	598.6
47.5°	667.7	644.4	601.9	567.8	552.0
50°	626.1	601.1	556.2	521.2	505.4
52.5°	584.5	557.0	512.9	475.4	461.2
55°	538.7	515.4	466.2	428.8	414.6
57.5°	497.9	472.1	425.4	387.1	371.3
60°	455.4	427.1	379.7	342.2	327.2
62.5°	410.5	382.2	336.4	298.9	285.6
65°	366.3	338.0	293.9	257.3	244.8
67.5°	322.2	295.6	251.4	217.3	203.1
70°	279.7	252.3	208.1	177.3	169.0
72.5°	234.8	213.1	169.0	141.5	134.9
75°	194.8	170.7	131.5	109.9	104.1
77.5°	154.0	130.7	97.4	82.4	77.4
80°	114.9	94.9	68.3	59.1	57.4
82.5°	79.1	59.9	45.0	43.3	42.5
85°	49.1	31.6	28.3	26.6	26.6
87.5°	20.8	13.3	13.3	12.5	13.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243760

CATALOG NUMBER: S125RDRP-H850D940-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	18.77	20.35	19.13	20.66	20.97	17.26	18.83	17.62	19.15	19.46
	3H	20.53	21.95	20.91	22.28	22.64	18.54	19.96	18.91	20.28	20.64
	4H	21.18	22.52	21.58	22.87	23.24	18.92	20.26	19.32	20.61	20.98
	6H	21.66	22.89	22.07	23.26	23.65	19.16	20.39	19.57	20.76	21.15
	8H	21.80	22.98	22.23	23.37	23.77	19.23	20.41	19.66	20.80	21.20
	12H	21.90	23.02	22.33	23.41	23.83	19.29	20.42	19.72	20.80	21.23
4H	2H	19.17	20.50	19.57	20.85	21.23	17.94	19.28	18.34	19.62	20.00
	3H	21.13	22.24	21.54	22.64	23.04	19.40	20.52	19.81	20.91	21.31
	4H	21.91	22.91	22.34	23.33	23.76	19.87	20.87	20.30	21.29	21.73
	6H	22.50	23.38	22.96	23.82	24.28	20.19	21.06	20.64	21.50	21.96
	8H	22.69	23.51	23.15	23.95	24.41	20.29	21.11	20.76	21.55	22.02
	12H	22.82	23.56	23.30	24.03	24.50	20.38	21.11	20.86	21.59	22.06
8H	4H	22.03	22.85	22.49	23.29	23.76	20.18	21.00	20.64	21.44	21.91
	6H	22.70	23.38	23.20	23.87	24.35	20.57	21.25	21.07	21.74	22.22
	8H	22.94	23.55	23.45	24.06	24.54	20.73	21.33	21.24	21.84	22.33
	12H	23.13	23.67	23.64	24.16	24.72	20.86	21.40	21.37	21.89	22.45
12H	4H	22.02	22.75	22.50	23.23	23.70	20.22	20.95	20.70	21.42	21.89
	6H	22.70	23.30	23.21	23.81	24.30	20.62	21.23	21.13	21.74	22.23
	8H	22.97	23.51	23.48	24.00	24.56	20.82	21.36	21.33	21.85	22.41