

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: P243736

Luminaire Tested: S125RDRP-H850D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243736
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-H850D830-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

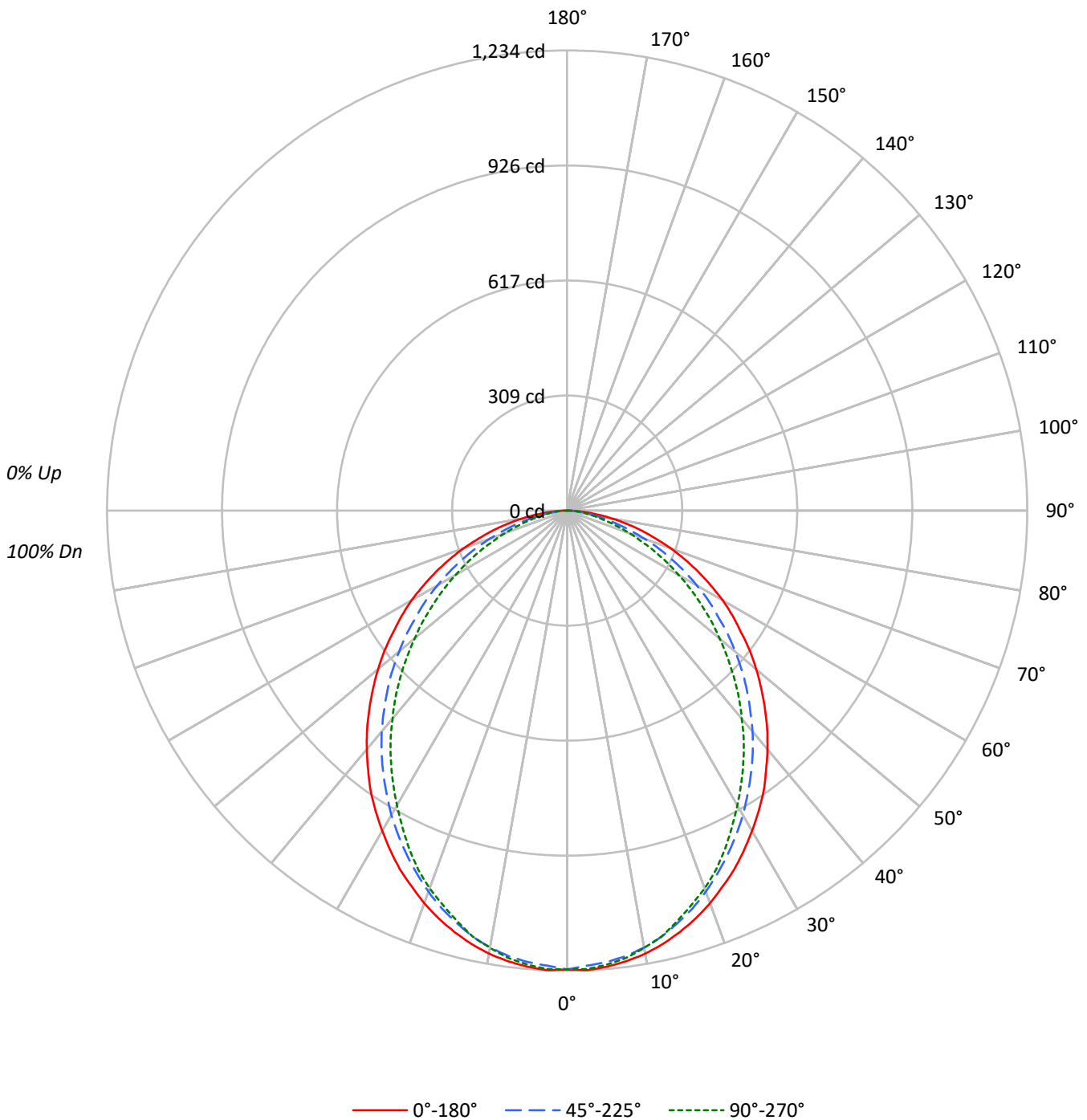
Lumens per Lamp: N/A
Luminaire Lumens: 2940.7 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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: P243736

CATALOG NUMBER: S125RDRP-H850D830-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P243736

CATALOG NUMBER: S125RDRP-H850D830-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	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	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°	8744	8744	8744
5°	8758	8671	8721
10°	8707	8587	8593
15°	8606	8424	8385
20°	8473	8227	8153
25°	8323	7985	7854
30°	8140	7735	7490
35°	7972	7460	7147
40°	7756	7177	6761
45°	7536	6855	6359
50°	7318	6500	5907
55°	7056	6106	5431
60°	6843	5704	4917
65°	6512	5225	4351
70°	6145	4572	3711
75°	5654	3817	3021
80°	4969	2955	2484
85°	4232	2438	2300

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7536 cd/sqm



TEST NUMBER: P243736

CATALOG NUMBER: S125RDRP-H850D830-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.9	3.9
10°-20°	324.6	11.0
20°-30°	472.3	16.1
30°-40°	540.9	18.4
40°-50°	529.3	18.0
50°-60°	446.9	15.2
60°-70°	312.9	10.6
70°-80°	158.9	5.4
80°-90°	39.1	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°	912.8	31.0
0°-40°	1453.7	49.4
0°-60°	2429.8	82.6
0°-90°	2940.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2940.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1230	1230	1230	1230	1230	
5°	1228	1225	1215	1223	1222	117
15°	1170	1165	1145	1144	1140	330
25°	1061	1049	1018	1008	1002	488
35°	919	897	860	834	824	574
45°	750	725	682	646	633	579
55°	569	545	493	453	438	511
65°	387	357	311	272	259	384
75°	206	180	139	116	110	218
85°	52	33	30	28	28	59
90°	0	0	0	0	0	

TEST NUMBER: P243736

CATALOG NUMBER: S125RDRP-H850D830-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1230.3	1230.3	1230.3	1230.3	1230.3
2.5°	1233.8	1231.2	1221.5	1230.3	1230.3
5°	1227.6	1225.0	1215.3	1223.2	1222.4
7.5°	1218.8	1216.2	1204.8	1212.7	1210.0
10°	1206.5	1203.0	1189.8	1194.2	1190.7
12.5°	1189.8	1186.3	1170.4	1172.2	1170.4
15°	1169.6	1165.2	1144.9	1144.0	1139.6
17.5°	1146.7	1140.5	1118.5	1115.9	1108.8
20°	1120.3	1112.4	1087.7	1082.4	1078.0
22.5°	1090.4	1082.4	1053.4	1045.5	1042.8
25°	1061.3	1049.0	1018.2	1007.6	1001.5
27.5°	1027.0	1012.9	981.2	967.2	956.6
30°	991.8	976.0	942.5	924.0	912.6
32.5°	955.7	937.2	901.2	878.3	868.6
35°	918.8	896.8	859.8	834.3	823.7
37.5°	876.5	854.5	817.6	787.6	777.9
40°	836.0	813.2	773.5	741.0	728.7
42.5°	793.8	770.0	726.9	692.6	682.0
45°	749.8	725.1	682.0	645.9	632.7
47.5°	705.8	681.1	636.3	600.2	583.5
50°	661.8	635.4	587.9	550.9	534.2
52.5°	617.8	588.7	542.1	502.5	487.5
55°	569.4	544.7	492.8	453.2	438.3
57.5°	526.3	499.0	449.7	409.2	392.5
60°	481.4	451.5	401.3	361.7	345.9
62.5°	433.9	403.9	355.5	315.9	301.9
65°	387.2	357.3	310.7	271.9	258.7
67.5°	340.6	312.4	265.8	229.7	214.7
70°	295.7	266.6	220.0	187.4	178.6
72.5°	248.2	225.3	178.6	149.6	142.6
75°	205.9	180.4	139.0	116.2	110.0
77.5°	162.8	138.2	103.0	87.1	81.8
80°	121.4	100.3	72.2	62.5	60.7
82.5°	83.6	63.4	47.5	45.8	44.9
85°	51.9	33.4	29.9	28.2	28.2
87.5°	22.0	14.1	14.1	13.2	14.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243736
 CATALOG NUMBER: S125RDRP-H850D830-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	18.96	20.54	19.32	20.85	21.17	17.45	19.03	17.81	19.34	19.66
	3H	20.72	22.14	21.10	22.47	22.83	18.73	20.15	19.11	20.48	20.84
	4H	21.38	22.71	21.78	23.06	23.44	19.12	20.45	19.51	20.80	21.18
	6H	21.85	23.08	22.26	23.45	23.84	19.35	20.59	19.76	20.95	21.34
	8H	21.99	23.17	22.42	23.56	23.96	19.43	20.61	19.85	20.99	21.39
	12H	22.09	23.22	22.52	23.60	24.03	19.48	20.61	19.91	20.99	21.42
4H	2H	19.36	20.69	19.76	21.04	21.42	18.13	19.47	18.53	19.82	20.19
	3H	21.32	22.43	21.73	22.83	23.23	19.60	20.71	20.01	21.11	21.51
	4H	22.10	23.11	22.53	23.52	23.96	20.06	21.07	20.50	21.48	21.92
	6H	22.70	23.57	23.15	24.01	24.47	20.38	21.26	20.84	21.70	22.16
	8H	22.88	23.70	23.34	24.14	24.61	20.49	21.30	20.95	21.75	22.21
	12H	23.02	23.75	23.50	24.22	24.69	20.57	21.30	21.05	21.78	22.25
8H	4H	22.22	23.04	22.68	23.48	23.95	20.37	21.19	20.83	21.63	22.10
	6H	22.90	23.57	23.39	24.06	24.54	20.77	21.44	21.26	21.93	22.41
	8H	23.13	23.74	23.65	24.25	24.74	20.92	21.53	21.43	22.04	22.52
	12H	23.32	23.86	23.83	24.35	24.91	21.06	21.59	21.57	22.09	22.65
12H	4H	22.22	22.95	22.70	23.42	23.89	20.41	21.14	20.89	21.62	22.09
	6H	22.89	23.50	23.40	24.00	24.49	20.82	21.42	21.33	21.93	22.42
	8H	23.17	23.70	23.67	24.19	24.76	21.02	21.55	21.52	22.04	22.61