

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: P243750

Luminaire Tested: S125RDRP-H850D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243750
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-H850D930-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

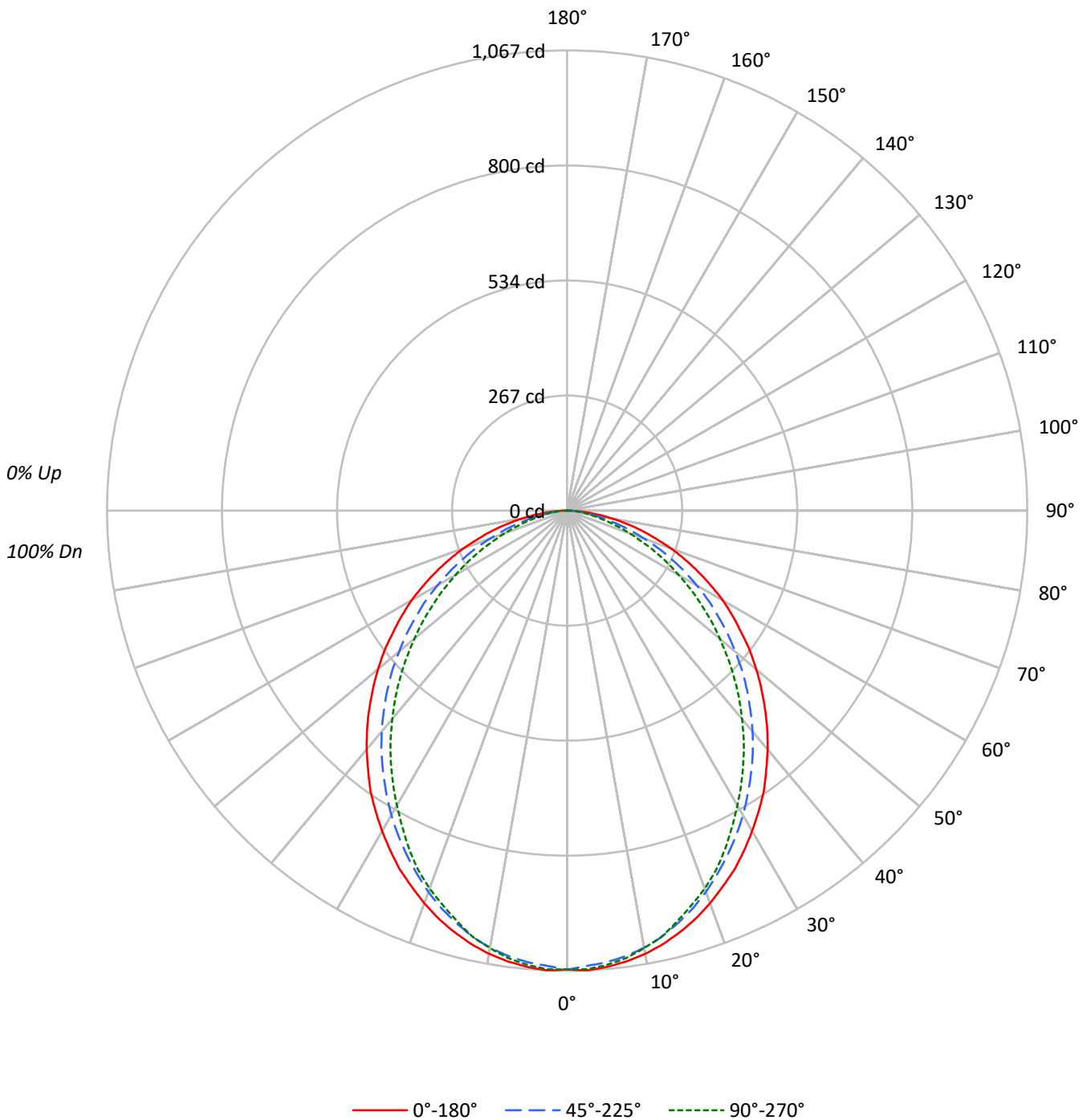
Lumens per Lamp: N/A
Luminaire Lumens: 2543.7 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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

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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	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°	7564	7564	7564
5°	7576	7500	7543
10°	7532	7428	7433
15°	7444	7287	7254
20°	7329	7116	7053
25°	7199	6907	6794
30°	7041	6691	6478
35°	6895	6453	6182
40°	6710	6208	5848
45°	6519	5930	5501
50°	6329	5623	5109
55°	6103	5282	4698
60°	5919	4934	4253
65°	5632	4519	3764
70°	5316	3955	3211
75°	4891	3304	2614
80°	4298	2554	2149
85°	3661	2112	1990

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6519 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	3.9
10°-20°	280.8	11.0
20°-30°	408.6	16.1
30°-40°	467.9	18.4
40°-50°	457.8	18.0
50°-60°	386.6	15.2
60°-70°	270.6	10.6
70°-80°	137.4	5.4
80°-90°	33.8	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°	789.5	31.0
0°-40°	1257.4	49.4
0°-60°	2101.8	82.6
0°-90°	2543.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2543.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1062	1060	1051	1058	1057	101
15°	1012	1008	990	990	986	285
25°	918	907	881	872	866	422
35°	795	776	744	722	712	496
45°	649	627	590	559	547	501
55°	492	471	426	392	379	442
65°	335	309	269	235	224	332
75°	178	156	120	100	95	188
85°	45	29	26	24	24	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.2	1064.2	1064.2	1064.2	1064.2
2.5°	1067.2	1065.0	1056.6	1064.2	1064.2
5°	1061.9	1059.6	1051.3	1058.1	1057.3
7.5°	1054.3	1052.0	1042.1	1049.0	1046.7
10°	1043.6	1040.6	1029.2	1033.0	1029.9
12.5°	1029.2	1026.1	1012.4	1014.0	1012.4
15°	1011.7	1007.9	990.4	989.6	985.8
17.5°	991.9	986.6	967.5	965.2	959.1
20°	969.0	962.2	940.9	936.3	932.5
22.5°	943.2	936.3	911.2	904.3	902.1
25°	918.0	907.4	880.7	871.6	866.3
27.5°	888.4	876.2	848.8	836.6	827.5
30°	857.9	844.2	815.3	799.3	789.4
32.5°	826.7	810.7	779.5	759.7	751.3
35°	794.7	775.7	743.7	721.6	712.5
37.5°	758.2	739.2	707.2	681.3	672.9
40°	723.2	703.4	669.1	641.0	630.3
42.5°	686.6	666.1	628.8	599.1	590.0
45°	648.6	627.3	590.0	558.7	547.3
47.5°	610.5	589.2	550.4	519.2	504.7
50°	572.4	549.6	508.5	476.5	462.1
52.5°	534.4	509.3	468.9	434.7	421.7
55°	492.5	471.2	426.3	392.0	379.1
57.5°	455.2	431.6	389.0	354.0	339.5
60°	416.4	390.5	347.1	312.9	299.2
62.5°	375.3	349.4	307.5	273.3	261.1
65°	334.9	309.1	268.7	235.2	223.8
67.5°	294.6	270.2	229.9	198.7	185.7
70°	255.8	230.7	190.3	162.1	154.5
72.5°	214.7	194.9	154.5	129.4	123.3
75°	178.1	156.1	120.3	100.5	95.2
77.5°	140.8	119.5	89.1	75.4	70.8
80°	105.0	86.8	62.4	54.0	52.5
82.5°	72.3	54.8	41.1	39.6	38.8
85°	44.9	28.9	25.9	24.4	24.4
87.5°	19.0	12.2	12.2	11.4	12.2
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	18.46	20.03	18.82	20.35	20.66	16.95	18.52	17.31	18.84	19.15
	3H	20.22	21.64	20.59	21.96	22.33	18.22	19.65	18.60	19.97	20.33
	4H	20.87	22.21	21.27	22.56	22.93	18.61	19.95	19.01	20.30	20.67
	6H	21.34	22.58	21.76	22.94	23.34	18.85	20.08	19.26	20.45	20.84
	8H	21.49	22.67	21.91	23.06	23.46	18.92	20.10	19.35	20.49	20.89
	12H	21.58	22.71	22.01	23.09	23.52	18.98	20.11	19.41	20.49	20.92
4H	2H	18.86	20.19	19.25	20.54	20.92	17.63	18.97	18.03	19.31	19.69
	3H	20.82	21.93	21.23	22.33	22.73	19.09	20.20	19.50	20.60	21.00
	4H	21.60	22.60	22.03	23.02	23.45	19.56	20.56	19.99	20.98	21.41
	6H	22.19	23.07	22.65	23.51	23.96	19.88	20.75	20.33	21.19	21.65
	8H	22.38	23.19	22.84	23.64	24.10	19.98	20.80	20.45	21.24	21.71
	12H	22.51	23.24	22.99	23.72	24.19	20.07	20.80	20.55	21.28	21.75
8H	4H	21.72	22.54	22.18	22.98	23.44	19.87	20.69	20.33	21.13	21.59
	6H	22.39	23.07	22.89	23.56	24.04	20.26	20.94	20.76	21.43	21.91
	8H	22.63	23.24	23.14	23.75	24.23	20.42	21.02	20.93	21.53	22.02
	12H	22.82	23.36	23.33	23.85	24.41	20.55	21.09	21.06	21.58	22.14
12H	4H	21.71	22.44	22.19	22.92	23.39	19.91	20.64	20.39	21.11	21.58
	6H	22.38	22.99	22.90	23.50	23.99	20.31	20.92	20.82	21.43	21.91
	8H	22.66	23.20	23.17	23.69	24.25	20.51	21.05	21.02	21.54	22.10