

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: P243755

Luminaire Tested: S125RDRP-H850D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243755
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-H850D935-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

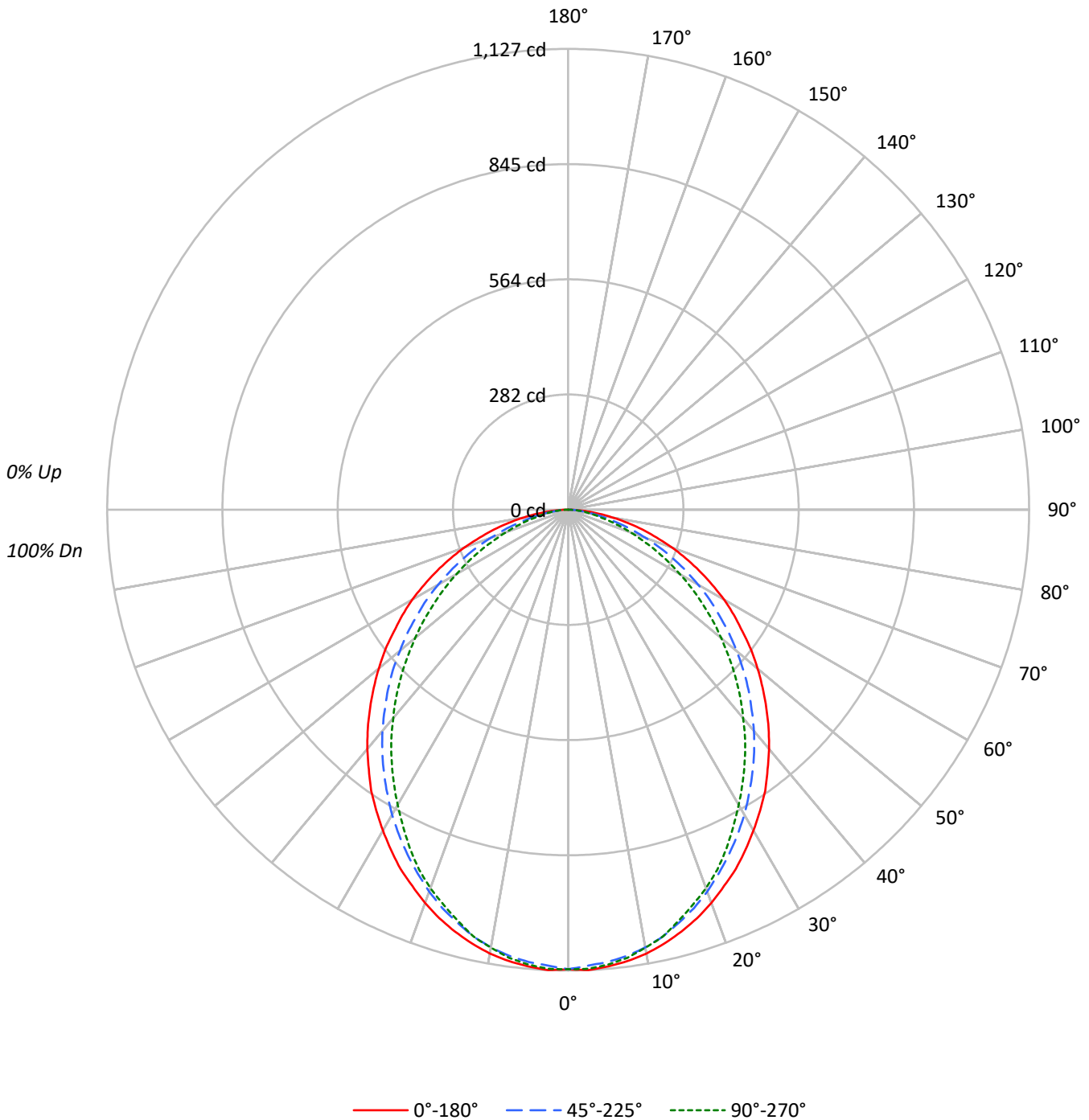
Lumens per Lamp: N/A
Luminaire Lumens: 2686.3 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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	50	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°	7987	7987	7987
5°	8001	7921	7966
10°	7954	7844	7850
15°	7861	7696	7660
20°	7740	7515	7449
25°	7603	7294	7174
30°	7435	7066	6841
35°	7282	6814	6528
40°	7086	6556	6175
45°	6884	6262	5810
50°	6684	5938	5396
55°	6445	5579	4960
60°	6250	5211	4490
65°	5948	4773	3974
70°	5613	4177	3391
75°	5165	3488	2760
80°	4539	2697	2272
85°	3865	2226	2096

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6884 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.8	3.9
10°-20°	296.5	11.0
20°-30°	431.4	16.1
30°-40°	494.1	18.4
40°-50°	483.5	18.0
50°-60°	408.2	15.2
60°-70°	285.8	10.6
70°-80°	145.1	5.4
80°-90°	35.7	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°	833.8	31.0
0°-40°	1327.9	49.4
0°-60°	2219.6	82.6
0°-90°	2686.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2686.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1124	1124	1124	1124	1124	
5°	1121	1119	1110	1117	1117	106
15°	1068	1064	1046	1045	1041	301
25°	970	958	930	920	915	446
35°	839	819	785	762	752	524
45°	685	662	623	590	578	529
55°	520	498	450	414	400	467
65°	354	326	284	248	236	350
75°	188	165	127	106	100	199
85°	47	30	27	26	26	54
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1123.8	1123.8	1123.8	1123.8	1123.8
2.5°	1127.1	1124.7	1115.8	1123.8	1123.8
5°	1121.4	1119.0	1110.2	1117.4	1116.6
7.5°	1113.4	1111.0	1100.5	1107.8	1105.4
10°	1102.1	1098.9	1086.9	1090.9	1087.7
12.5°	1086.9	1083.7	1069.2	1070.8	1069.2
15°	1068.4	1064.4	1045.9	1045.1	1041.0
17.5°	1047.5	1041.9	1021.8	1019.3	1012.9
20°	1023.4	1016.1	993.6	988.8	984.8
22.5°	996.0	988.8	962.3	955.0	952.6
25°	969.5	958.2	930.1	920.5	914.8
27.5°	938.1	925.3	896.3	883.5	873.8
30°	906.0	891.5	861.0	844.1	833.6
32.5°	873.0	856.2	823.2	802.3	793.4
35°	839.3	819.2	785.4	762.1	752.4
37.5°	800.7	780.6	746.8	719.5	710.6
40°	763.7	742.8	706.6	676.9	665.6
42.5°	725.1	703.4	664.0	632.7	623.0
45°	684.9	662.4	623.0	590.1	578.0
47.5°	644.7	622.2	581.2	548.3	533.0
50°	604.5	580.4	537.0	503.2	488.0
52.5°	564.3	537.8	495.2	459.0	445.4
55°	520.1	497.6	450.2	414.0	400.3
57.5°	480.7	455.8	410.8	373.8	358.5
60°	439.7	412.4	366.6	330.4	315.9
62.5°	396.3	369.0	324.8	288.6	275.7
65°	353.7	326.4	283.8	248.4	236.3
67.5°	311.1	285.4	242.8	209.8	196.2
70°	270.1	243.6	201.0	171.2	163.2
72.5°	226.7	205.8	163.2	136.7	130.2
75°	188.1	164.8	127.0	106.1	100.5
77.5°	148.7	126.2	94.1	79.6	74.8
80°	110.9	91.6	65.9	57.1	55.5
82.5°	76.4	57.9	43.4	41.8	41.0
85°	47.4	30.5	27.3	25.7	25.7
87.5°	20.1	12.9	12.9	12.1	12.9
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	18.64	20.22	19.01	20.54	20.85	17.13	18.71	17.50	19.03	19.34
	3H	20.41	21.83	20.78	22.15	22.52	18.41	19.84	18.79	20.16	20.52
	4H	21.06	22.40	21.46	22.75	23.12	18.80	20.14	19.20	20.48	20.86
	6H	21.53	22.77	21.95	23.13	23.53	19.04	20.27	19.45	20.64	21.03
	8H	21.68	22.86	22.10	23.25	23.65	19.11	20.29	19.54	20.68	21.08
	12H	21.77	22.90	22.20	23.28	23.71	19.17	20.29	19.60	20.68	21.11
4H	2H	19.04	20.38	19.44	20.73	21.10	17.82	19.16	18.22	19.50	19.88
	3H	21.01	22.12	21.42	22.52	22.92	19.28	20.39	19.69	20.79	21.19
	4H	21.79	22.79	22.22	23.21	23.64	19.75	20.75	20.18	21.17	21.60
	6H	22.38	23.25	22.84	23.70	24.15	20.07	20.94	20.52	21.38	21.84
	8H	22.57	23.38	23.03	23.83	24.29	20.17	20.99	20.64	21.43	21.90
	12H	22.70	23.43	23.18	23.91	24.38	20.26	20.99	20.74	21.47	21.94
8H	4H	21.91	22.72	22.37	23.17	23.63	20.06	20.87	20.52	21.32	21.78
	6H	22.58	23.26	23.08	23.75	24.22	20.45	21.13	20.95	21.62	22.10
	8H	22.82	23.43	23.33	23.93	24.42	20.61	21.21	21.12	21.72	22.21
	12H	23.01	23.55	23.52	24.04	24.60	20.74	21.28	21.25	21.77	22.33
12H	4H	21.90	22.63	22.38	23.11	23.58	20.09	20.83	20.58	21.30	21.77
	6H	22.57	23.18	23.09	23.69	24.18	20.50	21.11	21.01	21.62	22.10
	8H	22.85	23.39	23.36	23.88	24.44	20.70	21.24	21.21	21.73	22.29