

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: P243744

Luminaire Tested: S125RDRP-H610D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243744
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-H610D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

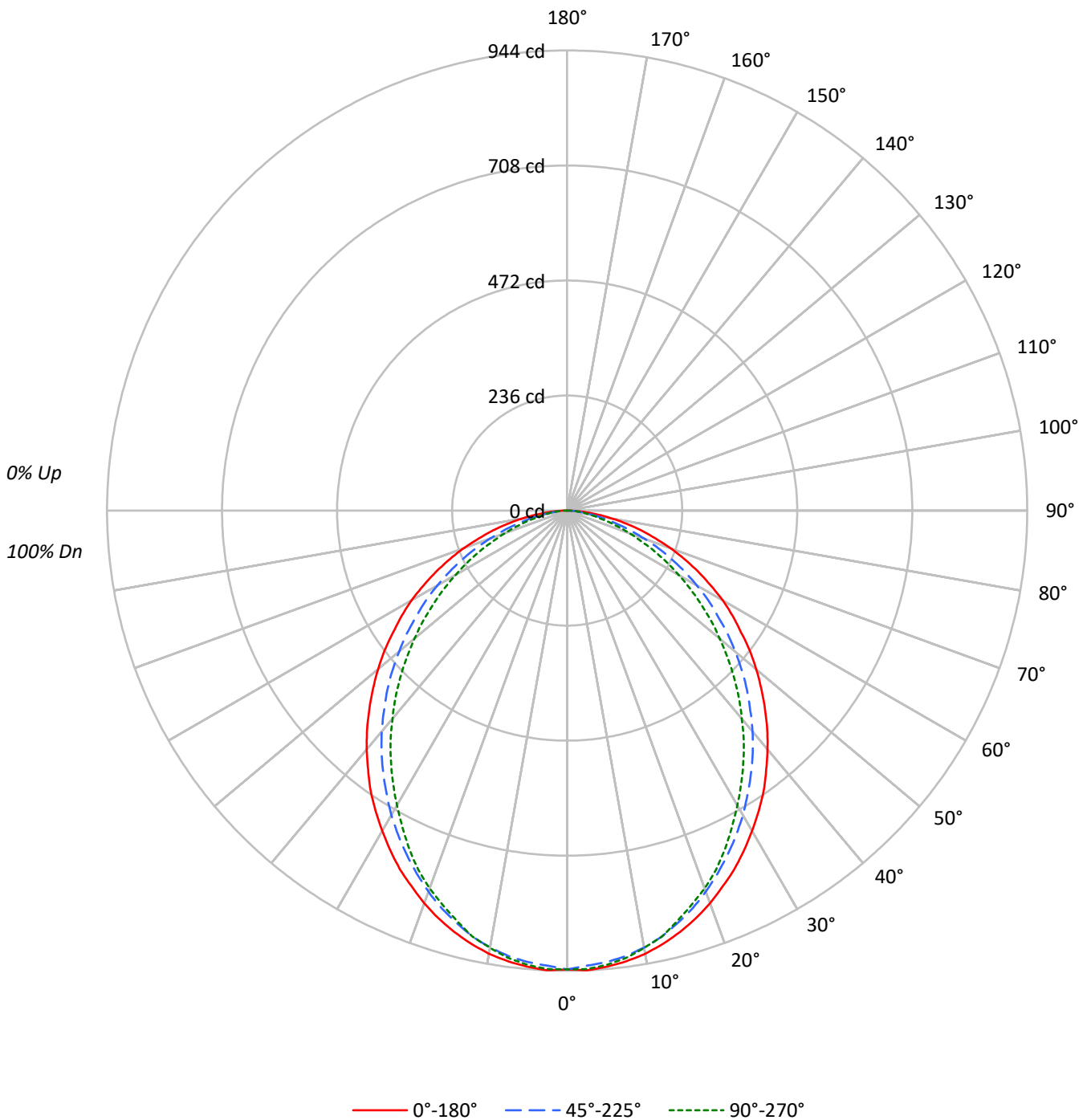
Lumens per Lamp: N/A
Luminaire Lumens: 2249.8 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
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	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°	6689	6689	6689
5°	6701	6634	6672
10°	6661	6569	6574
15°	6584	6445	6415
20°	6483	6294	6238
25°	6367	6109	6009
30°	6227	5918	5730
35°	6099	5707	5468
40°	5934	5491	5172
45°	5765	5245	4866
50°	5598	4972	4519
55°	5398	4672	4155
60°	5235	4364	3761
65°	4981	3997	3328
70°	4701	3497	2841
75°	4325	2922	2312
80°	3802	2259	1903
85°	3237	1867	1753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5765 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.6	3.9
10°-20°	248.3	11.0
20°-30°	361.3	16.1
30°-40°	413.8	18.4
40°-50°	404.9	18.0
50°-60°	341.9	15.2
60°-70°	239.3	10.6
70°-80°	121.6	5.4
80°-90°	29.9	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°	698.3	31.0
0°-40°	1112.1	49.4
0°-60°	1858.9	82.6
0°-90°	2249.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2249.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	941	941	941	941	941	
5°	939	937	930	936	935	89
15°	895	891	876	875	872	252
25°	812	802	779	771	766	374
35°	703	686	658	638	630	439
45°	574	555	522	494	484	443
55°	436	417	377	347	335	391
65°	296	273	238	208	198	293
75°	158	138	106	89	84	167
85°	40	26	23	22	22	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	941.2	941.2	941.2	941.2	941.2
2.5°	943.9	941.9	934.5	941.2	941.2
5°	939.2	937.2	929.8	935.8	935.2
7.5°	932.5	930.4	921.7	927.7	925.7
10°	923.0	920.3	910.2	913.6	910.9
12.5°	910.2	907.6	895.4	896.8	895.4
15°	894.8	891.4	875.9	875.2	871.9
17.5°	877.3	872.5	855.7	853.7	848.3
20°	857.1	851.0	832.1	828.1	824.7
22.5°	834.2	828.1	805.9	799.8	797.8
25°	811.9	802.5	779.0	770.9	766.2
27.5°	785.7	774.9	750.7	739.9	731.8
30°	758.8	746.6	721.1	706.9	698.2
32.5°	731.2	717.0	689.4	671.9	664.5
35°	702.9	686.0	657.8	638.2	630.2
37.5°	670.6	653.7	625.5	602.6	595.2
40°	639.6	622.1	591.8	566.9	557.5
42.5°	607.3	589.1	556.1	529.9	521.8
45°	573.6	554.8	521.8	494.2	484.1
47.5°	540.0	521.1	486.8	459.2	446.4
50°	506.3	486.1	449.7	421.5	408.7
52.5°	472.6	450.4	414.7	384.4	373.0
55°	435.6	416.7	377.0	346.7	335.3
57.5°	402.6	381.7	344.0	313.1	300.3
60°	368.3	345.4	307.0	276.7	264.6
62.5°	331.9	309.0	272.0	241.7	230.9
65°	296.2	273.3	237.7	208.0	197.9
67.5°	260.6	239.0	203.3	175.7	164.3
70°	226.2	204.0	168.3	143.4	136.7
72.5°	189.9	172.4	136.7	114.5	109.1
75°	157.5	138.0	106.4	88.9	84.2
77.5°	124.6	105.7	78.8	66.7	62.6
80°	92.9	76.8	55.2	47.8	46.5
82.5°	64.0	48.5	36.4	35.0	34.3
85°	39.7	25.6	22.9	21.5	21.5
87.5°	16.8	10.8	10.8	10.1	10.8
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	18.03	19.61	18.39	19.92	20.24	16.52	18.10	16.88	18.41	18.73
	3H	19.79	21.21	20.17	21.54	21.90	17.80	19.22	18.18	19.55	19.91
	4H	20.45	21.78	20.85	22.13	22.51	18.19	19.52	18.58	19.87	20.25
	6H	20.92	22.15	21.33	22.52	22.91	18.42	19.66	18.83	20.02	20.41
	8H	21.06	22.24	21.49	22.63	23.03	18.50	19.68	18.92	20.07	20.47
	12H	21.16	22.29	21.59	22.67	23.10	18.55	19.68	18.98	20.06	20.49
4H	2H	18.43	19.76	18.83	20.11	20.49	17.20	18.54	17.60	18.89	19.27
	3H	20.39	21.50	20.80	21.90	22.30	18.67	19.78	19.08	20.18	20.58
	4H	21.17	22.17	21.60	22.59	23.03	19.13	20.14	19.57	20.55	20.99
	6H	21.77	22.64	22.22	23.08	23.54	19.45	20.33	19.91	20.77	21.23
	8H	21.95	22.77	22.41	23.21	23.68	19.56	20.38	20.02	20.82	21.28
	12H	22.09	22.82	22.57	23.29	23.76	19.64	20.37	20.12	20.85	21.32
8H	4H	21.29	22.11	21.75	22.55	23.02	19.44	20.26	19.90	20.70	21.17
	6H	21.97	22.64	22.46	23.13	23.61	19.84	20.51	20.33	21.00	21.48
	8H	22.20	22.81	22.72	23.32	23.81	19.99	20.60	20.50	21.11	21.59
	12H	22.39	22.93	22.90	23.42	23.98	20.13	20.66	20.64	21.15	21.72
12H	4H	21.28	22.02	21.77	22.49	22.96	19.48	20.21	19.96	20.69	21.16
	6H	21.96	22.57	22.47	23.07	23.56	19.89	20.49	20.40	21.00	21.49
	8H	22.24	22.77	22.74	23.26	23.83	20.09	20.62	20.60	21.11	21.68