

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: P243741

Luminaire Tested: S125RDRP-H1090D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243741
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-H1090D835-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

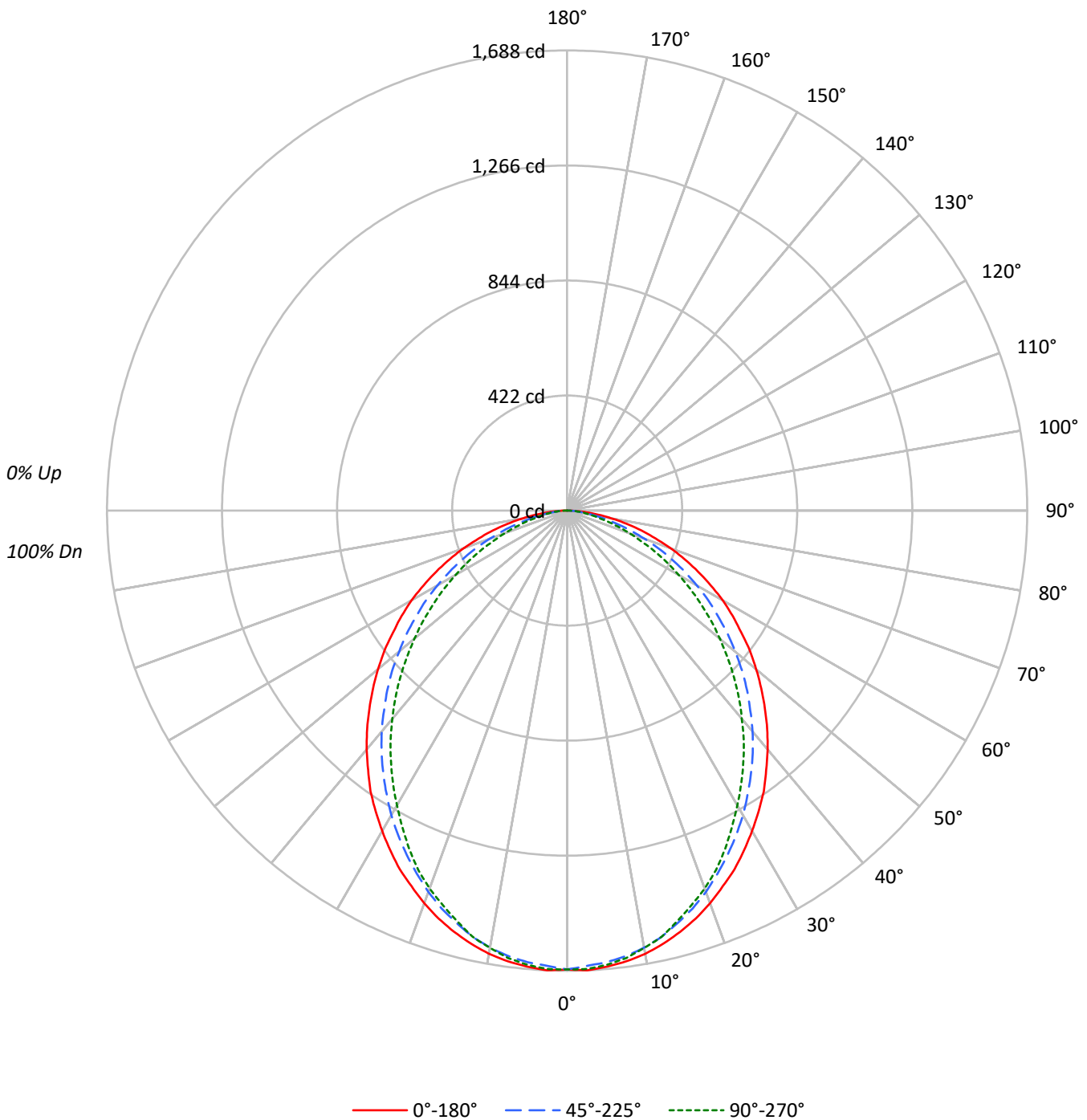
Lumens per Lamp: N/A
Luminaire Lumens: 4023.6 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	11964	11964	11964
5°	11984	11864	11932
10°	11914	11749	11757
15°	11774	11526	11473
20°	11593	11257	11156
25°	11387	10925	10746
30°	11137	10584	10248
35°	10907	10207	9778
40°	10613	9820	9250
45°	10312	9380	8701
50°	10012	8893	8082
55°	9654	8355	7430
60°	9362	7805	6726
65°	8910	7147	5953
70°	8408	6255	5079
75°	7738	5223	4133
80°	6802	4040	3401
85°	5790	3335	3140

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10312 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.5	3.9
10°-20°	444.1	11.0
20°-30°	646.2	16.1
30°-40°	740.1	18.4
40°-50°	724.2	18.0
50°-60°	611.4	15.2
60°-70°	428.1	10.6
70°-80°	217.4	5.4
80°-90°	53.5	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°	1248.9	31.0
0°-40°	1989.0	49.4
0°-60°	3324.6	82.6
0°-90°	4023.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4023.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1683	1683	1683	1683	1683	
5°	1680	1676	1663	1674	1672	159
15°	1600	1594	1566	1565	1559	451
25°	1452	1435	1393	1379	1370	668
35°	1257	1227	1176	1142	1127	785
45°	1026	992	933	884	866	792
55°	779	745	674	620	600	699
65°	530	489	425	372	354	525
75°	282	247	190	159	150	298
85°	71	46	41	38	38	81
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1683.3	1683.3	1683.3	1683.3	1683.3
2.5°	1688.1	1684.5	1671.3	1683.3	1683.3
5°	1679.7	1676.1	1662.9	1673.7	1672.5
7.5°	1667.7	1664.1	1648.4	1659.2	1655.6
10°	1650.8	1646.0	1627.9	1634.0	1629.1
12.5°	1627.9	1623.1	1601.5	1603.9	1601.5
15°	1600.2	1594.2	1566.5	1565.3	1559.3
17.5°	1568.9	1560.5	1530.4	1526.8	1517.2
20°	1532.8	1522.0	1488.3	1481.0	1475.0
22.5°	1491.9	1481.0	1441.3	1430.5	1426.9
25°	1452.1	1435.3	1393.1	1378.7	1370.3
27.5°	1405.2	1385.9	1342.6	1323.3	1308.9
30°	1357.0	1335.3	1289.6	1264.3	1248.7
32.5°	1307.7	1282.4	1233.0	1201.7	1188.4
35°	1257.1	1227.0	1176.4	1141.5	1127.0
37.5°	1199.3	1169.2	1118.6	1077.7	1064.4
40°	1143.9	1112.6	1058.4	1013.9	997.0
42.5°	1086.1	1053.6	994.6	947.6	933.2
45°	1025.9	992.2	933.2	883.8	865.7
47.5°	965.7	932.0	870.6	821.2	798.3
50°	905.5	869.4	804.3	753.8	730.9
52.5°	845.3	805.5	741.7	687.5	667.1
55°	779.1	745.3	674.3	620.1	599.6
57.5°	720.1	682.7	615.3	559.9	537.0
60°	658.6	617.7	549.1	494.9	473.2
62.5°	593.6	552.7	486.5	432.3	413.0
65°	529.8	488.9	425.0	372.1	354.0
67.5°	466.0	427.5	363.6	314.3	293.8
70°	404.6	364.8	301.0	256.5	244.4
72.5°	339.6	308.2	244.4	204.7	195.1
75°	281.8	246.8	190.2	158.9	150.5
77.5°	222.8	189.0	140.9	119.2	112.0
80°	166.2	137.3	98.7	85.5	83.1
82.5°	114.4	86.7	65.0	62.6	61.4
85°	71.0	45.8	40.9	38.5	38.5
87.5°	30.1	19.3	19.3	18.1	19.3
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	20.05	21.63	20.41	21.94	22.26	18.54	20.12	18.90	20.43	20.75
	3H	21.81	23.23	22.19	23.56	23.92	19.82	21.24	20.20	21.57	21.93
	4H	22.47	23.80	22.87	24.15	24.53	20.21	21.54	20.60	21.89	22.27
	6H	22.94	24.17	23.35	24.54	24.93	20.44	21.68	20.85	22.04	22.43
	8H	23.08	24.26	23.51	24.65	25.05	20.52	21.69	20.94	22.08	22.48
	12H	23.18	24.31	23.61	24.69	25.12	20.57	21.70	21.00	22.08	22.51
4H	2H	20.45	21.78	20.85	22.13	22.51	19.22	20.56	19.62	20.91	21.28
	3H	22.41	23.52	22.82	23.92	24.32	20.69	21.80	21.10	22.20	22.60
	4H	23.19	24.19	23.62	24.61	25.05	21.15	22.16	21.59	22.57	23.01
	6H	23.78	24.66	24.24	25.10	25.56	21.47	22.35	21.93	22.79	23.24
	8H	23.97	24.79	24.43	25.23	25.70	21.58	22.39	22.04	22.84	23.30
	12H	24.11	24.84	24.59	25.31	25.78	21.66	22.39	22.14	22.87	23.34
8H	4H	23.31	24.13	23.77	24.57	25.04	21.46	22.28	21.92	22.72	23.19
	6H	23.99	24.66	24.48	25.15	25.63	21.86	22.53	22.35	23.02	23.50
	8H	24.22	24.83	24.74	25.34	25.83	22.01	22.62	22.52	23.12	23.61
	12H	24.41	24.95	24.92	25.44	26.00	22.15	22.68	22.65	23.17	23.74
12H	4H	23.30	24.04	23.79	24.51	24.98	21.50	22.23	21.98	22.71	23.18
	6H	23.98	24.59	24.49	25.09	25.58	21.91	22.51	22.42	23.02	23.51
	8H	24.26	24.79	24.76	25.28	25.85	22.11	22.64	22.61	23.13	23.70