

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: P243737

Luminaire Tested: S125RDRP-H1090D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243737
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-H1090D830-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

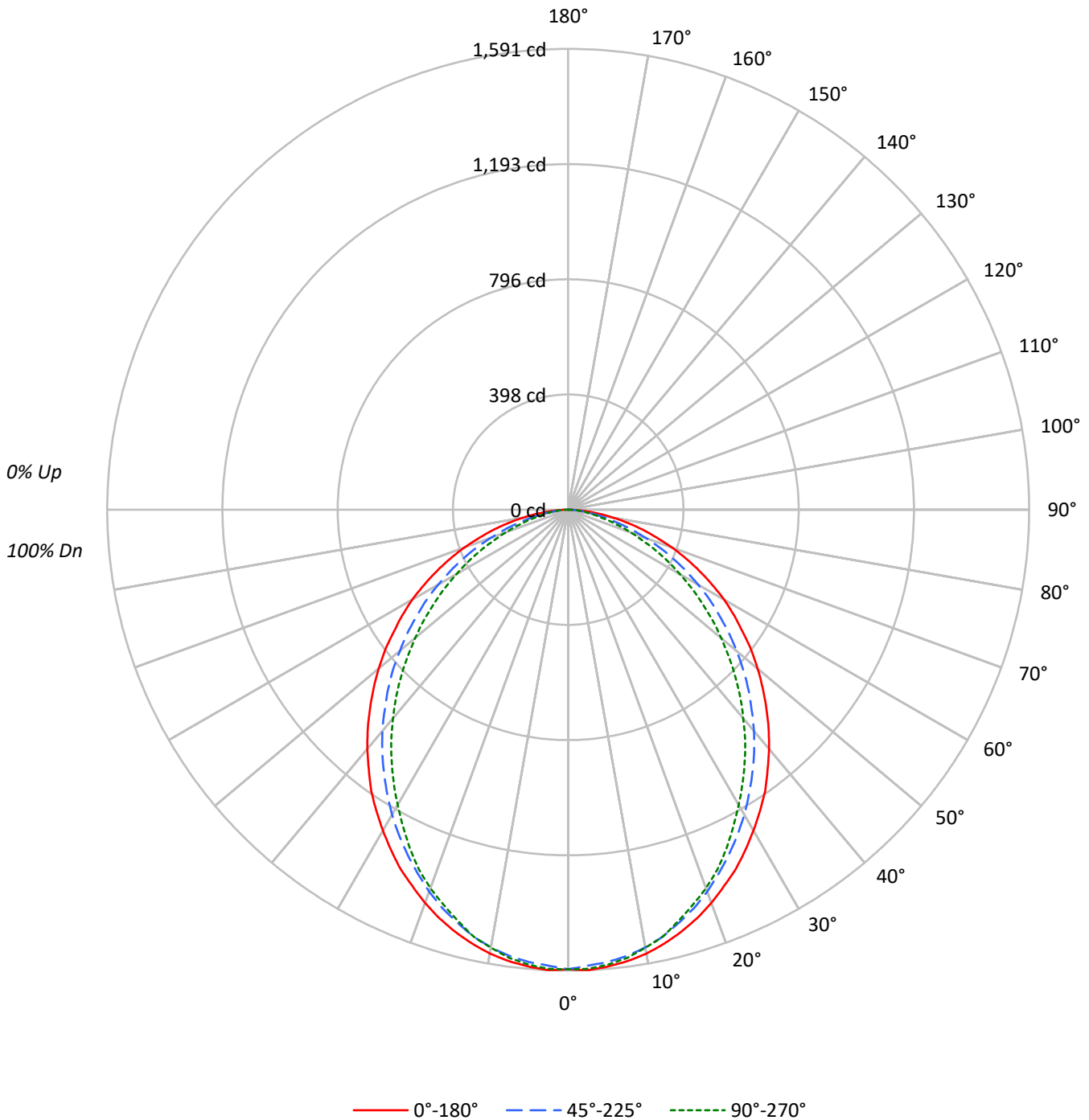
Lumens per Lamp: N/A
Luminaire Lumens: 3792.4 lumens
Efficiency: N/A
Efficacy: 120.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (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	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					85			
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32					32			
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29					29			
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11277	11277	11277
5°	11295	11182	11247
10°	11230	11074	11082
15°	11098	10864	10814
20°	10927	10610	10516
25°	10733	10297	10128
30°	10497	9975	9659
35°	10281	9620	9217
40°	10004	9256	8719
45°	9719	8841	8202
50°	9437	8382	7617
55°	9099	7876	7004
60°	8824	7356	6340
65°	8399	6737	5612
70°	7924	5895	4788
75°	7294	4924	3897
80°	6410	3811	3205
85°	5464	3148	2960

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9719 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.4	3.9
10°-20°	418.6	11.0
20°-30°	609.1	16.1
30°-40°	697.6	18.4
40°-50°	682.6	18.0
50°-60°	576.3	15.2
60°-70°	403.5	10.6
70°-80°	204.9	5.4
80°-90°	50.4	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°	1177.1	31.0
0°-40°	1874.7	49.4
0°-60°	3133.6	82.6
0°-90°	3792.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3792.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1587	1587	1587	1587	1587	
5°	1583	1580	1567	1578	1576	150
15°	1508	1503	1476	1475	1470	425
25°	1369	1353	1313	1300	1292	630
35°	1185	1156	1109	1076	1062	740
45°	967	935	880	833	816	746
55°	734	702	636	584	565	659
65°	499	461	401	351	334	495
75°	266	233	179	150	142	281
85°	67	43	39	36	36	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1586.6	1586.6	1586.6	1586.6	1586.6
2.5°	1591.2	1587.7	1575.3	1586.6	1586.6
5°	1583.2	1579.8	1567.3	1577.5	1576.4
7.5°	1571.9	1568.5	1553.7	1563.9	1560.5
10°	1556.0	1551.4	1534.4	1540.1	1535.5
12.5°	1534.4	1529.9	1509.4	1511.7	1509.4
15°	1508.3	1502.6	1476.5	1475.4	1469.7
17.5°	1478.8	1470.8	1442.5	1439.1	1430.0
20°	1444.7	1434.5	1402.8	1395.9	1390.3
22.5°	1406.2	1395.9	1358.5	1348.3	1344.9
25°	1368.7	1352.8	1313.1	1299.5	1291.5
27.5°	1324.4	1306.3	1265.4	1247.3	1233.7
30°	1279.0	1258.6	1215.5	1191.7	1176.9
32.5°	1232.5	1208.7	1162.2	1132.6	1120.2
35°	1184.9	1156.5	1108.8	1075.9	1062.3
37.5°	1130.4	1102.0	1054.3	1015.7	1003.3
40°	1078.2	1048.7	997.6	955.6	939.7
42.5°	1023.7	993.1	937.4	893.2	879.6
45°	966.9	935.2	879.6	833.0	816.0
47.5°	910.2	878.4	820.5	774.0	752.4
50°	853.5	819.4	758.1	710.5	688.9
52.5°	796.7	759.3	699.1	648.0	628.7
55°	734.3	702.5	635.6	584.5	565.2
57.5°	678.7	643.5	579.9	527.7	506.2
60°	620.8	582.2	517.5	466.4	446.0
62.5°	559.5	520.9	458.5	407.4	389.3
65°	499.4	460.8	400.6	350.7	333.7
67.5°	439.2	402.9	342.7	296.2	276.9
70°	381.3	343.9	283.7	241.7	230.4
72.5°	320.0	290.5	230.4	192.9	183.9
75°	265.6	232.7	179.3	149.8	141.9
77.5°	210.0	178.2	132.8	112.4	105.5
80°	156.6	129.4	93.1	80.6	78.3
82.5°	107.8	81.7	61.3	59.0	57.9
85°	67.0	43.1	38.6	36.3	36.3
87.5°	28.4	18.2	18.2	17.0	18.2
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	19.84	21.42	20.21	21.74	22.05	18.33	19.91	18.70	20.22	20.54
	3H	21.60	23.03	21.98	23.35	23.71	19.61	21.03	19.99	21.36	21.72
	4H	22.26	23.60	22.66	23.94	24.32	20.00	21.33	20.40	21.68	22.06
	6H	22.73	23.97	23.14	24.33	24.72	20.23	21.47	20.65	21.84	22.23
	8H	22.88	24.05	23.30	24.44	24.84	20.31	21.49	20.74	21.88	22.28
	12H	22.97	24.10	23.40	24.48	24.91	20.37	21.49	20.79	21.87	22.30
4H	2H	20.24	21.58	20.64	21.93	22.30	19.02	20.35	19.42	20.70	21.08
	3H	22.21	23.32	22.62	23.72	24.12	20.48	21.59	20.89	21.99	22.39
	4H	22.99	23.99	23.42	24.40	24.84	20.95	21.95	21.38	22.36	22.80
	6H	23.58	24.45	24.03	24.89	25.35	21.27	22.14	21.72	22.58	23.04
	8H	23.77	24.58	24.23	25.03	25.49	21.37	22.19	21.83	22.63	23.10
	12H	23.90	24.63	24.38	25.11	25.58	21.46	22.19	21.94	22.66	23.13
8H	4H	23.11	23.92	23.57	24.37	24.83	21.26	22.07	21.72	22.52	22.98
	6H	23.78	24.46	24.28	24.95	25.42	21.65	22.33	22.15	22.82	23.29
	8H	24.02	24.62	24.53	25.13	25.62	21.80	22.41	22.32	22.92	23.41
	12H	24.21	24.74	24.72	25.24	25.80	21.94	22.48	22.45	22.97	23.53
12H	4H	23.10	23.83	23.58	24.31	24.78	21.29	22.02	21.77	22.50	22.97
	6H	23.77	24.38	24.28	24.89	25.38	21.70	22.31	22.21	22.82	23.30
	8H	24.05	24.59	24.56	25.08	25.64	21.90	22.44	22.41	22.93	23.49